



COMMONWEALTH of VIRGINIA

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Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	The Goodyear Tire and Rubber Company
Facility Name:	The Goodyear Tire and Rubber Company
Facility Location:	1901 Goodyear Boulevard Danville, VA 24541
Registration Number:	30106
Permit Number:	BRRO-30106

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act

<u>Permit Effective Date</u>	December 21, 2015
<u>Permit Expiration Date</u>	December 20, 2020

Robert J. Weld
Blue Ridge Regional Director

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Attachment 1: CAM Plan - RTO to control VOC from mixers

Attachment 2: CAM Plan – Cyclone-01 to control PM from pelletizer

Facility Information

Permittee

The Goodyear Tire and Rubber Company
1901 Goodyear Boulevard
Danville, VA

Responsible Official

John Romero
Manufacturing Director

Facility

The Goodyear Tire and Rubber Company
1901 Goodyear Boulevard
Danville, VA 24541

Contact Person

Matt Caton
Environmental Manager
(434) 791-9170

County-Plant Identification Number: 51-590-00013

Facility Description: NAICS Code – 326211 – Manufacturing of rubber tires for trucks and aircraft.

Emission Units

Equipment to be operated consists of:

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
Fuel Burning Equipment								
EU 035	123 MMBtu/hr B&W Model 22266 (1966)	---	---	EP-047, EP-049	---	---	---	---
EU 036	123 MMBtu/hr B&W Model 22265 (1966)	---	---	EP-047, EP-049	---	---	---	---
EU 037	123 MMBtu/hr B&W Model 22883 (1968)	---	---	EP-048, EP-049	---	---	---	---
EU 038	47.5 MMBtu/hr E Keeler Model DS-40 (1981)	---	---	EP-048, EP-049	---	---	---	5/28/81
Receiving Equipment								
EU 042	Carbon Black Transfer System (1967)	enclosure & bin vent filters	---	---	---	---	PM	---
Rubber Mixing Equipment (Note 1)								
EU001	Banbury Mixer 1	Dust Collector	DSCD1	DC-VH71	Banbury #1 Dump Sink	BB1DS	PM/PM10/PM2.5	12/3/14
		---	---	EP-002	Banbury #1 Airveyor Unit	AV1		
		Dust Collector	BBDC1	DC-VH72	Banbury #1 Feed Gate and Discharge Chute	BB1	PM/PM10/PM2.5	12/3/14
		---	---	---	Banbury #1 Slurry Dip	BB1SD		
		---	---	---	Banbury #1 Take-away Conveyor	BB1TAC		
		---	---	---	Banbury #1 Festoon	BB1FES		
		---	---	---	Banbury #1 Cooler Conveyor	BB1CC		
		---	---	---	Banbury #1 Wig Wag	BB1WW		

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU002	Banbury Mixer 2	Dust Collector	DSCD1	DC-VH71	Banbury #2 Dump Sink	BB2DS		12/3/14
		---	---	EP-003	Banbury #2 Airveyor Unit	AV2		
		Dust Collector	BBDC2	DC-VJ71	Banbury #2 Feed Gate and Discharge Chute	BB2		
		---	---	EP-003R	Banbury #2 Ram Air Exhaust	BB2RA	PM/PM10/PM2.5	
		---	---	---	Banbury #2 Slurry Dip	BB2SD		
		---	---	---	Banbury #2 Take-away Conveyor	BB2TAC		
		Cyclone	CL-01	EF-VL131	Banbury #2 Shaker Cooler Unit 1	BB2SC1	PM/PM10/PM2.5	12/3/14
		Cyclone	CL-01	EF-VL131	Banbury #2 Shaker Cooler Unit 2	BB2SC2	PM/PM10/PM2.5	12/3/14
EU003	Banbury Mixer 3	---	---	---	Banbury #2 Finished Pellet Conv.	BB2FPT		
		Dust Collector	DSCD1	DC-VH71	Banbury #3 Dump Sink	BB3DS	PM/PM10/PM2.5	9/4/02
		---	---	EP-005	Banbury #3 Airveyor Unit	AV3		
		---	---	EP-005R	Banbury #3 Ram Air Exhaust	BB3RA	PM/PM10/PM2.5	
		Dust Collector	BBDC3	DC-VK71	Banbury #3 Feed Gate and Discharge Chute	BB3	PM/PM10/PM2.5	9/4/02
		---	---	---	Banbury #3 Slurry Dip	BB3SD		
		---	---	---	Banbury #3 Take-away Conveyor	BB3TAC		
		Cyclone	CL-02	EF-VM131	Banbury #3 Shaker Cooler Unit 1	BB3SC1	PM/PM10/PM2.5	9/4/02
EU004	Banbury Mixer 4	Cyclone	CL-02	EF-VM131	Banbury #3 Shaker Cooler Unit 2	BB3SC2	PM/PM10/PM2.5	9/4/02
		---	---	---	Banbury #3 Finished Pellet Conv.	BB3FPT		
		Dust Collector	DSCD1	DC-VH71	Banbury #4 Dump Sink	BB4DS	PM/PM10/PM2.5	12/3/14
		---	---	EP-006	Banbury #4 Airveyor Unit	AV4		
		Dust Collector	BBDC4	EP-007	Banbury #4, Feed Gate and Discharge Chute	BB4	PM/PM10/PM2.5	
		---	---	---	Banbury #4 Drop Mill	BB4DM		
		---	---	---	Banbury #4 Slurry Dip	BB4SD		
		---	---	---	Banbury #4 Take-away Conveyor	BB4TAC		
		---	---	---	Banbury #4 Festoon	BB4FES		
		---	---	---	Banbury #4 Wig Wag	BB4WW		

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU005	Banbury Mixer 5	Dust Collector	DSCD2	DC-VR71	Banbury #5/6 Dump Sink	BB5/6DS	PM/PM10/PM2.5	12/3/14
		---	---	EP-009	Banbury #5 Airveyor Unit	AV5		
		Dust Collector	BBDC5	DC-VV61	Banbury #5, Feed Gate and Discharge Chute	BB5	PM/PM10/PM2.5	
		---	---	---	Banbury #5 Roller Die	BB5RD		
		---	---	---	Banbury #5 Slurry Dip	BB5SD		
		---	---	---	Banbury #5 Take-away Conveyor	BB5TAC		
		---	---	---	Banbury #5 Festoon	BB5FES		
		---	---	---	Banbury #5 Chiller Rack	BB5CH		
		---	---	---	Banbury #5 Wig Wag	BB5WW		
EU006	Banbury Mixer 6	Dust Collector	DSCD2	DC-VR-71	Banbury #5/6 Dump Sink	BB5/6DS	PM/PM10/PM2.5	12/3/14
		---	---	EP-013	Banbury #6 Airveyor Unit	AV6		
		Dust Collector	BBDC6	EP-014	Banbury #6, Feed Gate and Discharge Chute	BB6	PM/PM10/PM2.5	
		---	---	---	Banbury #6 Roller Die	BB6RD		
		---	---	---	Banbury #6 Slurry Dip	BB6SD		
		---	---	---	Banbury #6 Take-away Conveyor	BB6TAC		
		---	---	---	Banbury #6 Festoon	BB6FES		
		---	---	---	Banbury #6 Wig Wag	BB6WW		
EU007	Banbury Mixer 7	Dust Collector	BBDC7	DC-VU/E21	Banbury #7 Feed Gate and Discharge Chute	BB7	PM/PM10/PM2.5	12/3/14
		Scrubber	BB7SC R	SCRB-VU/E42	Banbury #7 Drop Mill and Take Away Mill	BB7TAM	PM/PM10/PM2.5	
		---	BB7SC R	SCRB-VU/E42	Banbury #7 Take-away Conveyor 1	BB7TAC 1		
		---	---	---	Banbury #7 Take-away Conveyor 2	BB7TAC 2		
		---	---	---	Banbury #7 Chiller Rack	BB7CH		
		---	---	---	Banbury #7 Slurry Dip	BB7SD		
		---	---	---	Banbury #7 Cooler Conveyor	BB7CC		
		---	---	---	Banbury #7 Wig Wag	BB7WW		

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU008	Banbury Mixer 8	Dust Collector	BBDC8	DC-W/E31	Banbury #8 Feed Gate and Discharge Chute	BB8	PM/PM10/PM2.5	12/3/14
		Scrubber	BB8SC R	SCRB-W/E71	Banbury #8 Drop Mill and Take Away Mill	BB8TAM	PM/PM10/PM2.5	
		---	---	---	Banbury #8 Slurry Dip	BB8SD		
		---	BB8SC R	SCRB-W/E71	Banbury #8 Take-away Conveyor 1	BB8TAC 1		
		---	---	---	Banbury #8 Take-away Conveyor 2	BB8TAC 2		
		---	---	---	Banbury #8 Chiller Rack	BB8CH		
		---	---	---	Banbury #8 Cooler Conveyor	BB8CC		
		---	---	---	Banbury #8 Wig Wag	BB8WW		
EU009	Banbury Mixer 9	Dust Collector	BBDC9	DC-VBB21	Banbury #9 Feed Gate and Discharge Chute	BB9	PM/PM10/PM2.5	12/3/14
		Scrubber	BB9SC R	SCRB-VBB51	Banbury #9 Slurry Dip & Roller Die	BB9SD	PM/PM10/PM2.5	
		---	BB9SC R	SCRB-VBB51	Banbury #9 Take-away Conveyor 1	BB9TAC 1		
		---	---		Banbury #9 Take-away Conveyor 2	BB9TAC 2		
		---	---		Banbury #9 Chiller Rack	BB9CH		
		---	---		Banbury #9 Festoon	BB9FES		
		---	---		Banbury #9 Wig Wag	BB9WW		

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU0110	Banbury Mixer 110	Dust Collector	DC/1G-BB10-1	EF/1G-BB10-DC-1	Banbury #10, Feed Gate and Discharge Chute	BB10	PM/PM10/PM2.5	12/3/14
		RTO	RTO-1	RTO1	DC/1G-BB10-1	BB10	VOC	
			SC/1G-BB10-1	EF/1G-BB10-SC-1	Banbury #10, Roller Die	BB10RD		
		---	SC/1G-BB10-1	EF/1G-BB10-SC-1	Banbury #10 Slurry Dip	BB10SD		
		---	SC/1G-BB10-1	EF/1G-BB10-SC-1	Banbury #10 Take-away Conveyor 1	BB10TA C1		
		---	---	---	Banbury #10 Take-away Conveyor 2	BB10TA C2		
		---	---	---	Banbury #10 Chiller Rack	BB10CH		
		---	---	---	Banbury #10 Cooler Conveyor	BB10CC		
		---	---	---	Banbury #10 Wig Wag	BB10WW		
EU0111	Banbury Mixer 111	Dust Collector	DC/1G-BB11-1	EF/1G-BB11-DC-1	Banbury #11, Feed Gate and Discharge Chute	BB11	PM/PM10/PM2.5	12/3/14
		RTO	RTO-1	RTO1	DC/1G-BB11-1	BB11TA M	VOC	
			SC/1G-BB11-1	EF/1G-BB11-SC-1	Banbury #11, Roller Die	BB11RD		
		---	SC/1G-BB11-1	EF/1G-BB11-SC-1	Banbury #11 Slurry Dip	BB11SD		
		---	SC/1G-BB11-1	EF/1G-BB11-SC-1	Banbury #11 Take-away Conveyor 1	BB11TA C1		
		---	---	---	Banbury #11 Take-away Conveyor 2	BB11TA C2		
		---	---	---	Banbury #11 Chiller Rack	BB11CH		
		---	---	---	Banbury #11 Cooler Conveyor	BB11CC		
		---	---	---	Banbury #11 Wig Wag	BB11WW		

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU0112	Banbury Mixer 112	Dust Collector	DC/1G- BB12-1	EF/1G- BB12-DC-1	Banbury #12, Feed Gate and Discharge Chute	BB12	PM/PM10/PM2.5	12/3/14
		RTO	RTO-1	RTO1	DC/1G-BB12-1	BB12TA M	VOC	
			SC/1G- BB12-1	EF/1G- BB12-SC-1	Banbury #12, Roller Die	BB12RD		
		---	SC/1G- BB12-1	EF/1G- BB12-SC-1	Banbury #12 Slurry Dip	BB12SD		
		---	SC/1G- BB12-1	EF/1G- BB12-SC-1	Banbury #12 Take-away Conveyor 1	BB12TA C1		
		---	---	---	Banbury #12 Take-away Conveyor 2	BB12TA C2		
		---	---	---	Banbury #12 Chiller Rack	BB12CH		
		---	---	---	Banbury #12 Cooler Conveyor	BB12CC		
		---	---	---	Banbury #12 Wig Wag	BB12WW		
Extruding/Calendering Equipment								
EU 026	Fabric Calender	---	---	---	---	---	---	
EU 027	Gum Calender	---	---	---	---	---	---	
EU 028	Unisteel Calender	---	---	---	---	---	---	
EU 029	#1 Four Roll Gum Calender	---	---	---	---	---	---	
EU 030	#2 Four Roll Gum Calender	---	---	---	---	---	---	
EU 031	#3 Four Roll Gum Calender	---	---	---	---	---	---	
EU 033	Contour Calender	---	---	---	---	---	---	
EU 034	Two Roll Gum Calender	---	---	---	---	---	---	
DDM1	DDM1 (Hot Former#1)	---	---	---	---	---	---	12/3/14
EU 010	#1 Extruder Line	---	---	---	---	---	---	
EU 011	End Cementing Station, #1 Extruder Line	---	---	---	---	---	---	

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU 059	Inking Station, #1 Extruder Line	---	---	---	---	---	---	
EU 012	#2 Extruder Line	---	---	---	---	---	---	
EU 013	End Cementing Station, #2 Extruder Line	---	---	---	---	---	---	
EU 014	Inking Station, #2 Extruder Line	---	---	---	---	---	---	
EU 015	#3 Extruder Line	---	---	---	---	---	---	
EU 016	End Cementing Station, #3 Extruder Line	---	---	---	---	---	---	
EU 016a	Inking Station, #3 Extruder Line	---	---	---	---	---	---	
EU 017	#4 Extruder Line	---	---	---	---	---	---	
EU 018	End Cementing Station, #4 Extruder Line	---	---	---	---	---	---	
EU 018a	Inking Station, #4 Extruder Line	---	---	---	---	---	---	
EU 019	#5 Extruder Line	---	---	---	---	---	---	
EU 020	End Cementing Station, #5 Extruder Line	---	---	---	---	---	---	
EU 021	Inking Station, #5 Extruder Line	---	---	---	---	---	---	
EU 022	#6 Extruder Line	---	---	---	---	---	---	
EU 023	Inking Station, #6 Extruder Line	---	---	---	---	---	---	
EU 024	End Cementing Station, #6 Extruder Line	---	---	---	---	---	---	
EU 025	#7 Extruder Line	---	---	---	---	---	---	
EU 060	Inking Station, #7 Extruder Line	---	---	---	---	---	---	
EU 032	12 Bead Extruders	---	---	---	---	---	---	

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
EU054	Quad-Extruder (QE)	---	---	---	---	---	---	2/6/08
EU054a	QE – End Cementing Station	---	---	---	---	---	---	2/6/08
EU054b	QE – Ink Marking Station	---	---	---	---	---	---	2/6/08
Curing and Finishing Equipment								
EU 150	439 Cure Press cavities (83 Aero Cavities & 356 MRT Cavities)	---	---	---	---	---	---	12/3/14 (Note 2)
EU 044-EU 046	3 Spot-Au-Matic Units	Vacuum Solvent Recovery	VAC-SOL	EP054-EP056	---	---	VOC & HAP	12/3/14
EU 102	Green Tire Spray Booth #4	---	---	GTS4	---	---	VOC	
Facility-Wide (including solvent usage)								
EU 051	Facility-Wide Solvent Usage (Original Tire Building Machines and Repair Operations)	---	---	---	---	---	---	12/3/14
EU 151	NG Tire Building Machines	---	---	---	---	---	---	12/3/14
AR 01	Aircraft Tire Building Machines (New)	---	---	---	---	---	---	12/3/14
AR 02	Aircraft Tire Building Machine (1985)	---	---	---	---	---	---	
Supporting Equipment								
RG-1	Collmann Run-out Grinder	Wet Rotoclone	RGCD-1	---	---	RGCD-1	PM, PM-10	6/15/04

Emission Unit Reference Number	Emission Unit Description	Control Device Type	Control Device ID	Stack ID	Associated Equipment Name	Associated Equipment ID	Pollutant Controlled	Applicable Permit Document
Emergency Engines								
EU 061	Ball Field Fire Pump – 240 hp diesel engine	---	---	---	---	FP-61	---	
EU 062	Pump House Fire Pump - 290 hp diesel engine (Model Year 2008)	---	---	---	---	FP-62	---	
EU 066	Emergency Lighting – 755 HP diesel engine (Model Year 2014)	---		---	---	EG-66	---	

1. a. For each associated Banbury mixer, emission points controlled by BBDC1-BBDC9 include: charging door, chute and gate exhaust, black feed vent.
 b. For each associated Banbury mixer, emission points controlled by DC/1G-BB10-1 through DC/1G-BB12-1 include feed gate and discharge chute.
2. See Statement of Basis for additional history of presses installations.

General

1. The conditions in the sections labeled “Alternative 0” shall apply from the effective date of this Federal Operating Permit until the initial start-up of Banbury Mixer 110 (EU110). “Alternative 0” consists of conditions 22 thru 40, 140 thru 142, and 145 of this Title V permit

The conditions in the sections labeled “Alternative 1” of this permit shall apply upon initial start-up of Banbury Mixer 110 (EU0110). “Alternative 1” consists of conditions 41 thru 80, 143 thru 144, and 146 of this Title V permit.

Upon initial start-up of Banbury Mixer 111(EU0111) or 112 (EU0112), whichever occurs earlier, the sections labeled “Alternative 2” of this permit shall supersede the sections labeled “Alternative 1”. “Alternative 2” consists of conditions 81 thru 118, 143 thru 144, and 146 of this Title V permit.

(9VAC5-80-110 and Condition 36 of 12/3/14 Permit)

Fuel Burning Equipment Requirements

Fuel Burning Limitations

2. Fuel Burning Equipment – Limitations: The approved fuels for each B & W boiler (EU035, EU036, EU037) are natural gas and fuel oil. A change in the fuels may require a permit to modify and operate.
(9VAC5-80-110)
3. Fuel Burning Equipment - Limitations: Emissions from the operation of each B & W boiler (EU035, EU036, EU037) shall not exceed the limits specified below:

Particulate Matter	0.24 lb/MMBtu	(9VAC5-40-900)
Sulfur Dioxide	324.7 lbs/hr	(9VAC5-40-930)

4. Fuel Burning Equipment - Limitations: Visible Emissions from each of the boiler stacks (EP-047, EP-048 and EP-049) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity. During those periods when emissions from the Keeler boiler (EU 038) are being vented to either EP-048 or EP-049, visible emissions from that stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
(9VAC5-40-80, 9VAC5-50-80 and 9VAC5-80-110)
5. Fuel Burning Equipment - Limitations: The approved fuels for the Keeler boiler (EU038) are natural gas and fuel oil. A change in the fuels may require a permit to modify and operate.
(9VAC5-80-110 and Condition 9 of 5/28/81 Permit)

6. Fuel Burning Equipment - Limitations: The maximum sulfur content of the oil to be burned in the Keeler boiler (EU038) shall not exceed 2.36 percent by weight per shipment.
(9VAC5-80-110 and Condition 3 of 5/28/81 permit)
7. Fuel Burning Equipment - Limitations: The throughput of fuel in the Keeler boiler (EU038) shall be limited such that each of the following equations are satisfied monthly for each consecutive 12 month period:

- a. For NO_x emissions:

$$\frac{(55\text{lb} \times A) + (20\text{lb} \times B) + (100\text{lb} \times D)}{2000 \text{ lb/ton}} \leq 39.0 \text{ tons}$$

where:

A = Annual consumption of residual oil, in units of thousand gallons burned, calculated monthly as the sum of each consecutive 12 month period

B = Annual consumption of distillate oil, in units of thousand gallons burned, calculated monthly as the sum of each consecutive 12 month period, and

D = Annual consumption of natural gas, in units of million cubic feet burned, calculated monthly as the sum of each consecutive 12 month period, and:

- b. For SO₂ emissions:

$$\frac{(157\text{lb} \times S \times A) + (142\text{lb} \times S \times B) + (0.6\text{lb} \times D)}{2000 \text{ lb/ton}} \leq 39.7 \text{ tons}$$

where

S = Fuel sulfur content, in percent by weight. For example, if sulfur content is 2.36%, S = 2.36. S may be calculated as a weighted percentage for all fuel oil shipments of a given type (distillate or non-distillate), or may represent the maximum sulfur content of all shipments of that fuel type.

A = Annual consumption of residual oil, in units of thousand gallons burned, calculated monthly as the sum of each consecutive 12 month period

B = Annual consumption of distillate oil, in units of thousand gallons burned, calculated monthly as the sum of each consecutive 12 month period, and

D = Annual consumption of natural gas, in units of million cubic feet burned, calculated monthly as the sum of each consecutive 12 month period

For purposes of demonstrating compliance with this condition, distillate oil is defined as oil which meets ASTM specifications for numbers 1 or 2 fuel oil. The above equations must be satisfied monthly for each consecutive 12 month period.
(9VAC5-80-110 and Condition 3 of 5/28/81 permit)

8. Fuel Burning Equipment - Limitations: Emissions from the operation of the Keeler boiler (EU038) shall not exceed the limits specified below:

PM/PM ₁₀	8.57 lbs/hr	3.73 tons/yr	(9VAC5-50-260)
Sulfur Dioxide	119.44 lbs/hr	39.7 tons/yr	(9VAC5-50-260)
Nitrogen Oxides (as NO ₂)	19.34 lbs/hr	39.0 tons/yr	(9VAC5-50-260)
Volatile Organic Compounds	0.35 lbs/hr	1.84 tons/yr	(9VAC5-50-260)
Carbon Monoxide	2.12 lb/hr	9.30 tons/yr	(9VAC5-50-260)

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

(9VAC5-80-110 and Conditions 2, 3, 4, 5, and 6 of 5/28/81 Permit)

Fuel Burning Maintenance/Operating Procedures

9. Fuel Burning Equipment – Maintenance/Operating Procedures: Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.
(9VAC5-80-110)

10. Fuel Burning Equipment – Maintenance/Operating Procedures: The permittee shall develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance with respect to each boiler in order to minimize the duration and frequency of excess emissions.
(9VAC5-80-110 and 9VAC5-170-160)

Fuel Burning Monitoring

11. Fuel Burning Equipment – Monitoring: At least once on any day when fuel oil is being fired in any boiler an observation for the presence of visible emissions from the related boiler stack shall be made. If visible emissions are observed the permittee shall:
- take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the boiler has resumed operation with no visible emissions, or
 - conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the boiler are less than or equal to 20 percent opacity. If any of the 15-second observations exceeds 20% opacity, the observation period shall continue until a total of 60 minutes of observation have been completed.

Timely corrective action shall be taken, if necessary, such that the affected boiler resumes operation within 20% opacity.

The permittee shall maintain a boiler observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.

(9VAC5-80-110 E)

12. Fuel Burning Equipment – Monitoring: At a frequency of at least once every five years, the permittee shall conduct a stack test for particulate matter from at least one B&W boiler (EU035-EU037) to demonstrate compliance with the emission limit in Condition 3 of this permit. The test shall be conducted while the boiler is operating on fuel oil with sulfur content representative of normal operation. In the event boilers EU035-EU038 have combined fuel oil throughput of less than 10 million gallons for every consecutive 12 month period during the five year term of this permit, this requirement is waived. In the event boilers EU035-EU038 have combined fuel oil throughput of greater than or equal to 10 million gallons for a consecutive 12 month period during the term of this permit, the particulate matter test shall be performed within 180 days after the end of the calendar month during which the 10 million gallon threshold was met or exceeded. Unless otherwise requested by the Blue Ridge Regional Office, performance testing required by this condition shall not be repeated for a given boiler until all other B&W boilers have been tested. The test shall be conducted and reported and data reduced as set forth in 9VAC5-40-30 or 9VAC5-50-30 as applicable. The details of the tests shall be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Blue Ridge Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9VAC5-80-110 and 9VAC5-40-30)

Fuel Burning Recordkeeping

13. Fuel Burning Equipment – Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. results of any daily opacity observations required by Condition 11 of each boiler stack, along with any corrective actions.
 - b. the annual combustion of gas (in million cubic feet) and fuel oil (in thousand gallons) burned in the B & W boilers (EU 035, EU 036, and EU 037, combined), calculated monthly as the sum of each consecutive 12-month period.

- c. the annual combustion of gas (in million cubic feet) and fuel oil (in thousand gallons) burned in the Keeler boiler (EU 038), calculated monthly as the sum of each consecutive 12-month period.
- d. fuel analysis records showing the actual sulfur content of each shipment of fuel oil burned in the Keeler boiler (EU 038).
- e. calculations sufficient to demonstrate compliance with the fuel throughput limits in Condition 7.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-40-50, 9VAC5-50-50 and 9VAC5-80-110)

14. Fuel Burning Equipment – Recordkeeping: The permittee shall maintain records of the required training for boiler operations including a statement of time, place and nature of the training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler(s). These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9VAC5-80-110)

Fuel Burning Reporting

15. Fuel Burning Equipment – Reporting: The permittee shall submit quarterly reports of the fuel oil burned in the Keeler boiler to the Blue Ridge Regional Office, within 30 days after the end of each calendar quarter. Reports shall include, at a minimum, the fuel oil consumption and sulfur content of the oil burned.
(9VAC5-80-110 and Condition 3 of 5/28/81 Permit)

Receiving Equipment Requirements

Receiving Limitations

16. Receiving Equipment – Limitations: Particulate emissions from the carbon black transfer system shall be controlled by enclosure and bin vent filters. Each filter shall be provided with adequate access for inspection and shall be maintained by the permittee such that it is in proper working order at all times.
(9VAC5-40-20)
17. Receiving Equipment – Limitations: Particulate emissions from the carbon black transfer system shall not exceed 11.7 pounds per hour.
(9VAC5-40-260)
18. Receiving Equipment – Limitations: Visible Emissions from the carbon black transfer system shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity. Visible emissions from the carbon black vacuum system shall not exceed 20 percent opacity

except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.

(9VAC5-40-80, 9VAC5-50-80 and 9VAC5-80-110)

Receiving Maintenance/Operating Procedures

19. Receiving Equipment – Maintenance/Operating Procedures: The permittee shall develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance with respect to air pollution control equipment and process equipment which affects air emissions in order to minimize the duration and frequency of excess emissions.
(9VAC5-80-110 and 9VAC5-40-20E)

Receiving Monitoring

20. Receiving Equipment – Monitoring: At least one time per week an observation for the presence of visible emissions from the carbon black transfer system shall be made. If visible emissions are observed the permittee shall:

- a. take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the carbon black transfer system has resumed operation with no visible emissions, or
- b. conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the carbon black transfer system are less than or equal to 20 percent opacity. If any of the 15-second observations exceeds 20% opacity, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the carbon black transfer system resumes operation within 20% opacity.

Additionally, following any observation that detects the presence of visible emissions, a daily observation for the presence of visible emissions shall be made on each of the subsequent seven (7) days when the carbon black transfer system is operating.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.

(9VAC5-80-110 E)

Receiving Recordkeeping

21. Receiving Equipment – Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to, the results of any opacity observations required by Condition 20 of the carbon black transfer system, along with any corrective actions taken. These records shall be

available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-40-50, 9VAC5-50-50, and 9VAC5-80-110)

Mixing Equipment Requirements

Abbreviations:

LRR = Low Rolling Resistance project, Ph # = phase number

2002 = NSR permit document signed 9/4/02

2014 = NSR permit document signed 12/3/14

Alt # = Alternative number

Mixing Limitations - Alternative 0

22. Mixing Equipment (Alt 0) – Limitations: Particulate emissions from each Banbury unit (EU001-EU009) shall be controlled by a fabric filter. Specific components to be controlled are the charging door, chute and gate exhaust, and black feed vent associated with each Banbury mixer (EU001-EU009) and the dump sinks associated with Banbury Mixers 1-6 (EU 001- EU 006).

Each fabric filter shall be provided with adequate access for inspection and equipped with a device to continuously measure the differential pressure drop across the fabric filter. When a mixer is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating. (9VAC5-50-20, 9VAC5-80-110, and Condition 4 of 9/4/02 Permit)

23. Mixing Equipment (Alt 0) – Limitations: Particulate emissions from the shaker coolers associated with Banbury Mixers 2 and 3 (CL01 and CL02) shall be controlled by a cyclone. Each cyclone shall be provided with adequate access for inspection. (9VAC5-40-20)

24. Mixing Equipment (Alt 0) – Limitations: Particulate emissions from the take-away conveyors serving Banbury mixers 7, 8, and 9 shall be controlled by a scrubber. Each scrubber shall be provided with adequate access for inspection and equipped with a device to continuously measure the differential pressure through the scrubber. When a mixer is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating. (9VAC5-80-110 and Condition 5 of 9/4/02 Permit)

25. Mixing Equipment (Alt 0) – Limitations: The Goodyear Danville facility shall produce no more than 100,416 tons of pelletized rubber compounds per year in Banbury mixers 2 and 3 (combined), calculated monthly as the sum of each consecutive 12 month period.
(9VAC5-80-110 and Condition 8 of 9/4/02 Permit)
26. Mixing Equipment (Alt 0) – Limitations: The permittee shall not modify the dust collection system associated with the Banbury mixers (emission points currently controlled by fabric filters BBDC1 - BBDC9) in a manner that results in an increase in total volume of exhaust air.
(9VAC5-80-110 and Condition 9 of 9/4/02 Permit)
27. Mixing Equipment (Alt 0): Particulate emissions from each fabric filter associated with a Banbury mixer (BBDC1-BBDC9) shall not exceed 0.01 grains/ dry standard cubic foot of exhaust air.
(9VAC5-80-110 and Condition 10 of 9/4/02 Permit)
28. Mixing Equipment (Alt 0) – Limitations: Visible emissions from each emission point associated with a Banbury mixer (as indicated below) shall not exceed the six-minute average opacity limit indicated below, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

Emission Point	Emission Point ID	VE Limit
Fabric Filters serving Banbury Units 1-9 (BBDC1-BBDC9)	DC-VH72, DC-VJ71, DC-VK71, EP-007, DC-VV61, EP-014, DC-VU/E21, DC-W/E31, DC-VBB21	5% opacity
Fabric Filters serving Dump Sinks 1-4 & 5-6 (DSDC1 & DSDC2)	DC-VH71 DC-VR71	5% opacity
Scrubbers serving Banbury Units 7, 8, & 9 (BB7SCR, BB8SCR, BB9SCR)	SCRB-VU/E42, SCRIB-W/E71, SCRIB-VBB51	5% opacity
Cyclones serving Shaker Coolers 1 & 2 (CL01 & CL02)	EF-VL131 EF-VM131	20% opacity ^a
Other Emission Points	EP-002, EP-003, EP-003R, EP-005, EP-005R, EP-006, EP-009, EP-013	20% opacity ^b

^a Except for one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.

^b Except for one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

Visible emissions shall be determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9VAC5-40-80, 9VAC5-50-80, 9VAC5-80-110, and Condition 16 of 9/4/02 Permit)

29. Mixing Equipment (Alt 0) – Limitations: VOC emissions from all Banbury mixers combined (EU001-EU009) shall not exceed 189 tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance with the emission limit may be determined as follows:

$$VOC_{MIXING} = E_{MIXING} + (EF_{MIXING}) (\text{Quantity of rubber mixed, in tons})$$

Where:

VOC_{MIXING} = VOC Emissions (in tons) from Banbury mixer operation
 E_{MIXING} = Ethanol emissions (in tons), calculated as specified in Condition 30, below
 EF_{MIXING} = DEQ-approved emission factor for non-ethanol VOC from mixing, in lb/ton of rubber mixed

(9VAC5-80-110 and Condition 11 of 9/4/02 Permit)

30. Mixing Equipment (Alt 0) – Limitations: Ethanol emissions from each Banbury mixer (EU001-EU009) shall not exceed 21.0 tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance with the emission limit may be determined as follows:

$$E_{MIXING} = \sum L_i R_i C_i$$

Where:

E_{MIXING} = Ethanol Emissions (in tons) from Banbury mixer operation
 L_i = Liberation constant for the coupling agent i
 R_i = Reaction constant for the coupling agent i
 C_i = Quantity (in tons) of coupling agent i

(9VAC5-80-110, 9VAC5-50-260 and Condition 12 of 9/4/02 Permit)

31. Mixing Equipment (Alt 0) – Limitations: Emissions from the operation of each shaker cooler associated with Banbury Mixers 2 and 3 (CL01 and CL02) shall not exceed the limits specified below:

Particulate Matter 13.2 lbs/hr

(9VAC5-80-110 and 9VAC5-40-260)

Mixing Maintenance/Operating Procedures - Alternative 0

32. Mixing Equipment (Alt 0) – Maintenance/Operating Procedures: The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- Maintain an inventory of spare parts.
- Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9VAC5-50-20 E and Condition 25 of 9/4/02 Permit)

Mixing Monitoring - Alternative 0

33. Mixing Equipment (Alt 0) – Monitoring: At least one time per week an observation for the presence of visible emissions from each mixing line stack (each emission point identified in Condition 28 except CL01 and CL02) shall be made. If visible emissions are observed the permittee shall:

- a. take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the mixer has resumed operation with no visible emissions, or
- b. conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the affected emission point are less than or equal to the respective value listed in Condition 28. If any of the 15-second observations exceeds the respective value, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the affected unit (mixer or control device) resumes operation within the respective opacity value.

Additionally, following any observation that detects the presence of visible emissions, a daily observation for the presence of visible emissions shall be made on each of the subsequent seven (7) days when the relevant mixer is operating.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.

(9VAC5-80-110 E)

34. Mixing Equipment (Alt 0) – Monitoring: At a frequency of at least once every five years, the permittee shall conduct a stack test for PM from at least one fabric filter controlling emissions from a Banbury mixer (BBDC1-BBDC9) to demonstrate compliance with the emission limit in Condition 27 of this permit. Unless otherwise requested by the Blue Ridge Regional Office, performance testing required by this condition shall not be repeated for a given fabric filter until all other fabric filters have been tested. The test shall be conducted and reported and data reduced as set forth in 9VAC5-40-30 or 9VAC5-50-30 as applicable. The details of the tests shall be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Blue Ridge Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9VAC5-80-110, 9VAC5-40-30, and 9VAC5-50-30)

35. Mixing Equipment (Alt 0) – Limitations: Compliance Assurance Monitoring (CAM): The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the cyclones (CL01 and CL02) controlling particulate matter from the Banbury Mixer # 2 shaker coolers and the Banbury Mixer # 3 shaker

coolers. For the purposes of Alternative 0, particulate matter from the Banbury Mixer # 2 shaker coolers and the Banbury Mixer # 3 shaker coolers are referred to as "PSEU 2:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 2) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 36.g; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 36.h; or (3) otherwise approved by the DEQ conforming with Condition 36.a of this section, including, but not limited to, changes initiated by DEQ.

(9VAC5-80-110 E and 40 CFR 64.6(c))

36. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): Additional CAM requirements for PSEU 2 including their Quality Improvement Plan thresholds are:

- a. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): Each monitoring approach shall be designed and implemented in compliance with 40 CFR 64.3(b) or (d). If a monitoring approach uses a monitoring device, the device shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
 - i. Indicator;
 - ii. Measurement Approach;
 - iii. Indicator Range or Condition(s) for Range Development ; and
 - iv. The following performance criteria:
 - 1. Data Representativeness;
 - 2. Verification of Operational Status
 - 3. QA/QC Practices and Criteria
 - 4. Monitoring Frequency
 - 5. Data Collection Procedures
 - 6. Averaging Period

Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9VAC5-80-230.

(9VAC5-80-110 E and 40 CFR 64.6(c))

- b. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9VAC5-80-110 E and 40 CFR 64.6(c))
- c. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): If a monitoring approach uses a monitoring device, at all times, the permittee shall

maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9VAC5-80-110 E and 40 CFR 64.7(b))

- d. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the PSEU is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9VAC5-80-110 E and 40 CFR 64.7(c))
- e. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): Upon detecting an excursion or exceedance, the permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9VAC5-80-110 E and 40 CFR 64.7(d)(1))
- f. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9VAC5-80-110 E and 40 CFR 64.7(d)(2))

- g. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition 206) notify the Blue Ridge Regional Office and submit a revised CAM Plan for approval to the Blue Ridge Regional Office to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. (9VAC5-80-110 E, 40 CFR 64.7(e) and 40 CFR 64.6(c))
- h. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): For each PSEU, the Quality Improvement Plan (QIP) threshold shall be as shown in the following table:

PSEU			QIP Triggering Threshold
ID	Condition No.	Pollutant	
PSEU 2	35	PM/PM10	Indicator 2-A: 2 excursions in any 2 week period Indicator 2-B: a single excursion

For any PSEU, if the number of exceedances or excursions exceeds its threshold in the above table, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a QIP in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Blue Ridge Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.

(9VAC5-80-110 E and 40 CFR 64.8(a) and (b))

- i. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10. (9VAC5-80-110 and 40 CFR 64.10)

- j. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM): See also CAM recordkeeping requirements in condition 38, and CAM reporting requirements condition 40.
(9VAC5-80-110)

Mixing Recordkeeping - Alternative 0

37. Mixing Equipment (Alt 0) – Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. results of any required opacity observation of each mixing line stack (as identified in Condition 33) along with any corrective actions,
 - b. annual production of pelletized rubber compounds manufactured in Banbury mixers number 2 and 3 (in tons), calculated monthly as the sum of each consecutive 12 month period,
 - c. for each Banbury mixer (EU001-EU009), throughput and manufacturing specification sheets for each formulation containing coupling agent. Specification sheets shall include the identity and quantity of each coupling agent and the maximum mixing temperature for the formulation,
 - d. records of maintenance or construction activities performed on the dust collection system for the Banbury mixers (emission points currently controlled by fabric filters BBDC1 - BBDC9), sufficient to demonstrate that there has been no increase in the total air handling capacity of the dust collection system,
 - e. monthly and annual VOC emission calculations to verify compliance with the VOC emission limitations in Condition 29. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period,
 - f. monthly and annual ethanol emission calculations to verify compliance with the ethanol emission limitations in Condition 30. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period, and:
 - g. test report for the stack test required by Condition 34:

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110, and Condition 18 of 9/4/02 Permit)

38. Mixing Equipment (Alt 0) – Recordkeeping: Compliance Assurance Monitoring (CAM) Recordkeeping: The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to

implement a quality improvement plan (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (9VAC5-80-110 F and 40 CFR 64.9(b))

Mixing Testing - Alternative 0

39. Mixing Equipment (Alt 0) – Testing: The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. (9VAC5-50-30, 9VAC5-80-110, and Condition 19 of 9/4/02 Permit)

Mixing Reporting - Alternative 0

40. Mixing Equipment (Alt 0) – Compliance Assurance Monitoring (CAM) Reporting: The permittee shall submit CAM reports for each PSEU as part of the Title V semi-annual monitoring reports required by General Condition 204 of this permit to the Blue Ridge Regional Office. Such reports shall include at a minimum:
- a. Identification of the PSEU for which the report is made;
 - b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and;
 - d. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9VAC5-80-110 F and 40 CFR 64.9(a))

Mixing Limitations - Alternative 1

41. Mixing Equipment – Limitations (LRR Ph1): Permanent Shutdown – Banbury Mixer 3 (EU003) shall cease operation no later than the date of the initial start-up of Banbury Mixer 110 (EU0110). Reactivation of EU003 will be considered a physical change to the stationary source. For the purposes of this permit, EU003 includes the mixer and the associated dump sink, airveyor, pelletizer, slurry dip, take-away conveyor, shaker cooler units 1 & 2 and finished pellet conveyor. (9VAC5-80-110 and Condition 2 of 12/3/14 Permit)
42. Mixing Equipment – Limitations (LRR Ph1): Emission Controls – VOC emissions from the Banbury Mixer 110 shall be controlled by a Regenerative Thermal Oxidizer (RTO-1). The minimum combustion chamber temperature for the RTO-1 shall be

maintained at 1400⁰F (or as updated by performance testing required in condition 76) when the mixer is processing rubber compounds which include either High Temperature Coupling Agent (HTCA) or Low Temperature Coupling Agent (LTCA). Upon DEQ's written acceptance of the initial performance testing of RTO-1 that demonstrates compliance with the control efficiency as required by condition 43, the permittee may request that the minimum combustion chamber temperature be adjusted to that demonstrated during the performance testing as required by condition 76.

For the purposes of the LRR Ph1 conditions of this permit, *Coupling Agent* means a liquid or solid chemical additive mixed into a rubber compound to ensure that silica in the given formulation becomes an integral part of the rubber matrix on a molecular level; *High Temperature* means a rubber compound recipe temperature of 300⁰F or greater for any single "pass" of that rubber compound through the mixer; *Low Temperature* means a rubber compound recipe temperature of 250⁰F or greater but less than 300⁰F for any single "pass" of that rubber compound through the mixer; and *Sulfur Donor* means Low Temperature Coupling Agent additives when mixed at compound recipe temperatures of less than 250⁰F.

RTO-1 shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 3 of 12/3/14 permit)

43. Mixing Equipment – Limitations (LRR Ph1): Control Efficiency - RTO-1 shall maintain a control efficiency for VOC from Banbury Mixer 110 of no less than 98 percent, to be demonstrated by stack test.
(9VAC5-80-110 and Condition 4 of 12/3/14 permit)
44. Mixing Equipment – Limitations (LRR Ph1): Emission Controls – Particulate emissions from the Banbury Mixer 110 shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the Banbury Mixer 110 is operating.
(9VAC5-80-110 and Condition 5 of 12/3/14 permit)
45. Mixing Equipment – Limitations (LRR Ph1): Throughput - The throughput of rubber compounds through Banbury Mixer 110 shall not exceed 150 x 10⁶ pounds per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 8 of 12/3/14 permit)
46. Mixing Equipment – Limitations (LRR Ph1): Fuel - The approved fuel for RTO-1 is natural gas. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110 and Condition 9 of 12/3/14 permit)

47. Mixing Equipment – Limitations (LRR Ph1): Process Emission Limits - Emissions from the operation of Banbury Mixer 110 shall not exceed the limits specified below:

Particulate Matter (PM)	0.01 gr/dscf	---
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(9VAC5-80-110 and Condition 10 of 12/3/14 permit)

48. Mixing Equipment – Limitations (LRR Ph1): Process Emission Limits - Emissions from the operation of Banbury Mixer 110 and RTO-1 shall not exceed the limits specified below:

PM10	0.19 lbs/hr	0.83 tons/yr
PM2.5	0.19 lbs/hr	0.83 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 44 and 73.
 (9VAC5-80-110 and Condition 11 of 12/3/14 permit)

49. Mixing Equipment – Limitations (LRR Ph1): Process Emission Limits - Emissions from the operation of Banbury Mixer 110 and RTO-1, as measured at the RTO exit, shall not exceed the limits specified below:

Volatile Organic Compounds (including ethanol)	2.50 lb/ton RUBBER	93.7 tons/yr
Ethanol	---	92.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 42 and 73.
 (9VAC5-80-110 and Condition 12 of 12/3/14 permit)

50. Mixing Equipment – Limitations (LRR Ph1): Plantwide Emission Limits Related to Operation of Banbury Mixer 110 – Excluding the ethanol emissions as limited by Condition 49, ethanol emissions throughout the facility from use of coupling agents, including sulfur donors, in Banbury Mixer 110 shall not exceed the limit specified below:

Ethanol	---	375.1 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 73.
(9VAC5-80-110 and Condition 13 of 12/3/14 permit)

51. Mixing Equipment – Limitations (LRR Ph1): Visible Emission Limit - Visible emissions from RTO-1 shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-110 and Condition 14 of 12/3/14 permit)
52. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Emission Controls - Particulate emissions from each Banbury mixer 1, 2 & 4 thru 9 shall be controlled by a fabric filter.
(9VAC5-80-110 and Condition 40.A of 12/3/14 permit)
53. Mixing Equipment (Alt 1) – Limitations: Particulate emissions from the shaker coolers associated with Banbury Mixer 2 (CL01) shall be controlled by a cyclone. The cyclone shall be provided with adequate access for inspection.
(9VAC5-40-20)
54. Mixing Equipment (Alt 1) – Limitations: Particulate emissions from the takeaway conveyors serving Banbury mixers 7, 8, and 9 shall be controlled by a scrubber. Each scrubber shall be provided with adequate access for inspection and equipped with a device to continuously measure the differential pressure through the scrubber. When a mixer is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating.
(9VAC5-80-110 and Condition 41 of 12/3/14 Permit)
55. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Processing (Pelletized Rubber) - The Goodyear Danville facility shall produce no more than 50,208 tons of pelletized rubber compounds per year in Banbury mixer 2, calculated monthly as the sum of each consecutive 12 month period.
(9VAC5-80-110 and Condition 44.A of 12/3/14 permit)

56. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Operational Limits, Mixing - The permittee shall not modify the dust collection system associated with the Banbury mixers (emission points currently controlled by fabric filters BBDC1, BBDC2 & BBDC4 thru BBDC9) in a manner that results in an increase in total volume of exhaust air.
 (9VAC5-80-110 and Condition 45.A of 12/3/14 permit)
57. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Emission Limits, Mixing - Particulate emissions from each fabric filter associated with a Banbury mixer (BBDC1, BBDC2 & BBDC4 thru BBDC9) shall not exceed 0.01 grains/dry standard cubic foot of exhaust air.
 (9VAC5-80-110 and Condition 46.A of 12/3/14 permit)
58. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Visible emissions from each emission point associated with a Banbury mixer (as indicated below) shall not exceed the six-minute average opacity limit indicated below, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

Emission Point	Emission Point ID	VE Limit
Fabric Filters serving Banbury Units 1, 2 & 4 thru -9 (BBDC1, BBDC2 & BBDC4 thru BBDC9)	DC-VH72, DC-VJ71, EP-007, DC-VV61, EP-014, DC-VU/E21, DC-W/E31, DC-VBB21	5% opacity
Fabric Filters serving Dump Sinks 1, 2 & 4 & 5-6 (DSDC1 & DSDC2)	DC-VH71 DC-VR71	5% opacity
Scrubbers serving Banbury Units 7, 8, & 9 (BB7SCR, BB8SCR, BB9SCR)	SCRB-VU/E42, SCRIB-W/E71, SCRIB-VBB51	5% opacity
Cyclone serving Shaker Coolers BM2-1 & BM2- 2 (CL01)	EF-VL131	20% opacity ^a
Other Emission Points	EP-002, EP-003, EP-003R, EP-006, EP-009, EP-013	20% opacity ^b

^a Except for one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.

^b Except for one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

Visible emissions shall be determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
 (9VAC5-40-80, 9VAC5-50-80, 9VAC5-80-110, and Condition 52.A of 12/3/14 Permit)

59. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Emission Limits, Mixing - VOC emissions from all Banbury mixers B1, 2 & 4 thru 9 shall not exceed 168 tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance with the emission limit may be determined as follows:

$$\text{VOC}_{\text{MIXING}} = \text{E}_{\text{MIXING}} + (\text{EF}_{\text{MIXING}}) (\text{Quantity of rubber mixed, in tons})$$

Where:

$\text{VOC}_{\text{MIXING}}$ = VOC Emissions (in tons) from Banbury mixer operation

E_{MIXING} = Ethanol emissions (in tons), calculated as specified in Condition 60, below

$\text{EF}_{\text{MIXING}}$ = DEQ-approved emission factor for non-ethanol VOC from mixing, in lb/ton of rubber mixed

(9VAC5-80-110 and Condition 47.A of 12/3/14 permit)

60. Mixing Equipment – Limitations (2002 as amended 2014 Ph1): Emission Limits, Mixing - Ethanol emissions from each Banbury mixer (B1, 2 & 4 thru 9) shall not exceed 21.0 tons per year, calculated monthly as the sum of each consecutive 12 month period. Upon startup of Banbury Mixer 110 (EU0110), for the coupling agents used in Banbury mixers B1, 2 & 4 thru 9, compliance with the emission limit may be determined as follows:

$$E_{\text{MIXING}} = (0.25) (0.171) (CA_{\text{LOW}}) + (0.75) (0.194) (CA_{\text{HIGH}})$$

Where:

E_{MIXING} = Ethanol Emissions (in tons) from the Banbury mixer operation
 CA_{LOW} = See condition 61
 CA_{HIGH} = See condition 61

(9VAC5-80-110 and Condition 48.A of 12/3/14 permit)

61. Mixing Equipment – Limitations (2002 as amended 2014, Ph 1): Plantwide Emission Limits Related to Operation of Banbury Mixers 1, 2 & 4 thru 9 - Ethanol emissions throughout the facility from use of coupling agents and sulfur donors in Banbury Mixers 1, 2 & 4 thru 9 shall not exceed 385.7 tons per year, calculated monthly as the sum of each consecutive 12 month period. Upon startup of Banbury Mixer 110 (EU0110), for the coupling agents and sulfur donors used in Banbury mixers B1, 2 & 4 thru 9, compliance with the emission limit may be determined as follows:

$$E_{\text{PLANTWIDE, BM1, 2 \& 4 thru 9}} = 0.171 \times (CA_{\text{LOW}} + SD) + 0.194 \times (CA_{\text{HIGH}})$$

Where:

$E_{\text{PLANTWIDE}}$ = Plantwide ethanol emissions related to specified Banbury Mixers, in tons per year
 CA_{LOW} = Quantity (in tons) of coupling agent used in low temperature formulations (low temperature means greater than or equal to 250°F but less than 300°F)
 CA_{HIGH} = Quantity (in tons) of coupling agent used in high temperature formulations (high temperature means equal to or greater than 300°F)
 SD = Quantity (in tons) of coupling agent functioning as sulfur donor in formulations which are mixed at temperatures less than 250°F

(9VAC5-80-110 and Condition 49.A of 12/3/14 permit)

62. Mixing Equipment - Limitations (2002 as amended 2014, Ph 1): Approved Formulations - Upon startup of Banbury Mixer 110 (EU0110), the permittee is limited to the use in Banbury mixers B1, 2 & 4 thru 9, of coupling agents with ethanol generation rates less than or equal to those identified in the application identified in Condition 37 of the 12/3/14 permit ("equivalent formulations"). The permittee may use alternative or additional coupling agents provided the following conditions are met:

- a. ethanol emission limits in Conditions 60 and 61 are not exceeded,
- b. the alternative formulations do not result in emissions of additional pollutants,

- c. for each equivalent formulation, notification of usage (including MSDS and calculations supporting the ethanol generation rate) shall be provided to Blue Ridge Regional Office at least 30 days prior to initial usage, and
- d. for each formulation having an ethanol generation rate greater than those proposed in the application referenced in Condition 37 of the 12/3/14 permit, prior written approval of formulation usage and the equation used for calculating emissions shall be obtained from the Blue Ridge Regional Office.

(9VAC5-80-110 and Condition 50 of 12/3/14 permit)

63. Mixing Equipment (Alt 1) – Limitations: Emissions from the operation of the shaker coolers associated with Banbury Mixer 2 (CL01) shall not exceed the limits specified below:

Particulate Matter	13.2 lbs/hr
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(9VAC5-80-110 and 9VAC5-40-260)

Mixing Maintenance/Operating Procedures -Alternative 1

64. Mixing Equipment – Maintenance/Operating Procedures: The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9VAC5-50-20 E and Condition 60 of 12/3/14 Permit)

Mixing Monitoring - Alternative 1

65. Mixing Equipment – Monitoring (LRR Ph1): Monitoring Devices – RTO-1 shall be equipped with a device to continuously measure and record the temperature in the combustion chamber. For the purposes of this condition, “continuously” shall mean

that whenever the RTO is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring and recording) every 15 minutes. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the RTO is operating.

(9VAC5-80-110 and Condition 6 of 12/3/14 permit)

66. Mixing Equipment – Monitoring (LRR Ph1): Monitoring Devices – The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. For the purposes of this condition, “continuously” shall mean that whenever the Banbury Mixer 110 is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring) every 15 minutes. When the unit is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when Banbury Mixer 110 is operating.

(9VAC5-80-110 and Condition 7 of 12/3/14 permit)

67. Mixing Equipment – Monitoring (2002 as amended 2014 Ph1): Each fabric filter for Banbury mixers 1, 2 & 4 thru 9 shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. When a mixer is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating.

(9VAC5-80-110 and Condition 40.A of 12/3/14 permit)

68. Mixing Equipment (Alt 1) – Monitoring: At least one time per week an observation for the presence of visible emissions from each mixing line stack (each emission point identified in Condition 58 as an “Other Emission Point”) shall be made. If visible emissions are observed the permittee shall:

- a. take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the mixer has resumed operation with no visible emissions, or

- b. conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the affected emission point are less than or equal to the respective value listed in Condition 58. If any of the 15-second observations exceeds the respective value, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the affected unit (mixer or control device) resumes operation within the respective opacity value.

Additionally, following any observation that detects the presence of visible emissions, a daily observation for the presence of visible emissions shall be made on each of the subsequent seven (7) days when the relevant mixer is operating.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.

(9VAC5-80-110 E)

- 69. Mixing Equipment (Alt 1) – Monitoring: At a frequency of at least once every five years, the permittee shall conduct a stack test for PM from at least one fabric filter controlling emissions from a Banbury mixer (BBDC1, BBDC2 & BBDC4 thru BBDC9) to demonstrate compliance with the emission limit in Condition 57 of this permit. Unless otherwise requested by the Blue Ridge Regional Office, performance testing required by this condition shall not be repeated for a given fabric filter until all other fabric filters have been tested. The test shall be conducted and reported and data reduced as set forth in 9VAC5-40-30 or 9VAC5-50-30 as applicable. The details of the tests shall be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Blue Ridge Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit. (9VAC5-80-110, 9VAC5-40-30, and 9VAC5-50-30)

- 70. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTO (RTO-1) controlling VOC from the Banbury Mixer 110. For the purposes of Alternative 1, the RTO controlling VOC from the Banbury Mixer 110 is referred to as “PSEU 1:” with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 1) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 72.g; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 72.h; or (3) otherwise approved by the DEQ conforming with Condition 72.a of this section, including, but not limited to, changes initiated by DEQ. (9VAC5-80-110 E and 40 CFR 64.6(c))

71. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the cyclone (CL01) controlling particulate matter from the Banbury Mixer # 2 shaker coolers. For the purposes of Alternative 1, particulate matter from the Banbury Mixer # 2 shaker coolers are referred to as “PSEU 2:” with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 2) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 72.g; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 72.h; or (3) otherwise approved by the DEQ conforming with Condition 72.a of this section, including, but not limited to, changes initiated by DEQ.
(9VAC5-80-110 E and 40 CFR 64.6(c))

72. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): Additional CAM requirements for PSEU 1 and PSEU 2 including their Quality Improvement Plan thresholds are:

- a. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): Each monitoring approach shall be designed and implemented in compliance with 40 CFR 64.3(b) or (d). If a monitoring approach uses a monitoring device, the device shall be operated according to manufacturer’s specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:
 - i. Indicator;
 - ii. Measurement Approach;
 - iii. Indicator Range or Condition(s) for Range Development ; and
 - iv. The following performance criteria:
 - 1. Data Representativeness;
 - 2. Verification of Operational Status
 - 3. QA/QC Practices and Criteria
 - 4. Monitoring Frequency
 - 5. Data Collection Procedures
 - 6. Averaging Period

Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9VAC5-80-230.
(9VAC5-80-110 E and 40 CFR 64.6(c))

- b. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9VAC5-80-110 E and 40 CFR 64.6(c))

- c. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): If a monitoring approach uses a monitoring device, at all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9VAC5-80-110 E and 40 CFR 64.7(b))
- d. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the PSEU is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9VAC5-80-110 E and 40 CFR 64.7(c))
- e. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): Upon detecting an excursion or exceedance, the permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9VAC5-80-110 E and 40 CFR 64.7(d)(1))
- f. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9VAC5-80-110 E and 40 CFR 64.7(d)(2))

- g. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition 206) notify the Blue Ridge Regional Office and submit a revised CAM Plan for approval to the Blue Ridge Regional Office to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. (9VAC5-80-110 E, 40 CFR 64.7(e) and 40 CFR 64.6(c))
- h. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): For each PSEU, the Quality Improvement Plan (QIP) threshold shall be as shown in the following table:

PSEU			QIP Triggering Threshold
ID	Condition No.	Pollutant	
PSEU 1	70	VOC	5% for the RTO operating time that is required in accordance with condition 42
PSEU 2	71	PM/PM10	Indicator 2-A: 2 excursions in any 2 week period Indicator 2-B: a single excursion

For any PSEU, if the number of exceedances or excursions exceeds its threshold in the above table, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2) , the permittee shall develop, implement and maintain a QIP in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Blue Ridge Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.

(9VAC5-80-110 E and 40 CFR 64.8(a) and (b))

- i. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10. (9VAC5-80-110 and 40 CFR 64.10)

- j. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): See also CAM recordkeeping requirements in condition 75, and CAM reporting requirements condition 78.
(9VAC5-80-110)

Mixing Recordkeeping - Alternative 1

73. Mixing Equipment – Recordkeeping (LRR Ph1): On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. The total annual throughput of rubber compounds through Banbury Mixer 110, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
 - b. For Banbury Mixer 110, the annual consumption of each coupling agent, in units of $\text{lb}_{\text{COUPLING AGENT}} / \text{yr}$, and sulfur donor, in units of $\text{lb}_{\text{SULFUR DONOR}} / \text{yr}$, each calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
 - c. For Banbury Mixer 110, the annual throughput, calculated monthly as the sum of each consecutive 12-month period, and manufacturing specification sheet for each rubber compound containing coupling agent or sulfur donor. Specification sheets shall include the identity and quantity of each coupling agent, in units of $\text{lb}_{\text{COUPLING AGENT}} / \text{lb}_{\text{RUBBER}}$, the identity and quantity of each sulfur donor, in units of $\text{lb}_{\text{SULFUR DONOR}} / \text{lb}_{\text{RUBBER}}$, and the maximum mixing temperature for each pass for the compound,
 - d. For each coupling agent or sulfur donor used in Banbury Mixer 110, the Material Safety Data Sheet (MSDS) or other vendor information showing the composition, and supporting calculations needed to derive the emission rate of ethanol in units of $\text{lb}_{\text{ETHANOL}} / \text{lb}_{\text{COUPLING AGENT}}$ or $\text{lb}_{\text{ETHANOL}} / \text{lb}_{\text{SULFUR DONOR}}$,
 - e. Annual ethanol emissions from Banbury Mixer 110, calculated monthly as the sum of each consecutive 12-month period calculations to demonstrate compliance with the ethanol emission limitations in Conditions 49 and 50. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,

- f. For Banbury Mixer 110, annual PM10 and PM2.5 emissions calculations to verify compliance with the emission limitations in Condition 48, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
- g. For Banbury Mixer 110, annual VOC emissions calculations to verify compliance with the VOC emission limitations in Condition 49, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
- h. Operation and control device monitoring records for RTO1 as required in Condition 65,
- i. Operation and control device monitoring records for fabric filter as required in Condition 66,
- j. Results of all stack tests and performance evaluations,
- k. Records sufficient to demonstrate whether construction within Phase 1 is continuous.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110 and Condition 15 of 12/3/14 permit)

74. Mixing Equipment – Recordkeeping (2002 as amended 2014 Ph1): The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. results of any required opacity observation of each mixing line stack (as identified in Condition 68) along with any corrective actions,
 - b. Annual production of cured rubber compounds related to Banbury Mixers 1, 2 & 4 thru 9 (in tons), calculated monthly as the sum of each consecutive 12-month period, (Condition 54.a.A of 12/3/14 permit)
 - c. annual production of pelletized rubber compounds manufactured in Banbury mixer number 2 (in tons), calculated monthly as the sum of each consecutive 12-month period, (Condition 54.b.A of 12/3/14 permit)

- d. Annual consumption of each coupling agent and sulfur donor used in Banbury Mixers 1, 2 & 4 thru 9 (in tons), calculated monthly as the sum of each consecutive 12-month period. (Condition 54.c.A of 12/3/14 permit)
- e. For each Banbury mixer (B1, 2 & 4 thru 9), throughput and manufacturing specification sheets for each formulation containing coupling agent or sulfur donor. Specification sheets shall include the identity and quantity of each coupling agent or sulfur donor and the maximum mixing temperature for the formulation, (Condition 54.d.A of 12/3/14 permit)
- f. For each coupling agent or sulfur donor used, Material Safety Data Sheets (MSDS) or other vendor information showing the composition, and supporting calculations needed to derive the emission rate of ethanol from mixing and curing processes, (Condition 54.e of 12/3/14 permit)
- g. records of maintenance or construction activities performed on the dust collection system for the Banbury mixers (emission points currently controlled by fabric filters BBDC1, BBDC2 & BBDC4 thru BBDC9), sufficient to demonstrate that there has been no increase in the total air handling capacity of the dust collection system, (Condition 54.k.A of 12/3/14 permit)
- h. monthly and annual VOC emission calculations to verify compliance with the VOC emission limitations in Condition 59. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period, (Condition 54.i.A of 12/3/14 permit)
- i. monthly and annual ethanol emission calculations to verify compliance with the ethanol emission limitations in Condition 60 and 61. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period, (Condition 54.h.A of 12/3/14 permit)
- j. Scheduled and unscheduled maintenance, and operator training (Condition 54.l of 12/3/14 permit) and
- k. test report for the stack test required by Condition 69.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9VAC5-50-50, 9VAC5-80-110, and Condition 54 of 12/3/14 Permit)

75. Mixing Equipment (Alt 1) – Recordkeeping: Compliance Assurance Monitoring (CAM) Recordkeeping: The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information

required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (9VAC5-80-110 F and 40 CFR 64.9(b))

Mixing Testing - Alternative 1

76. Mixing Equipment – Testing (LRR Ph1): Stack Test - Initial performance tests shall be conducted for VOC from RTO1 to determine compliance with the control efficiency requirements contained in Condition 43. The tests shall be performed, reported and demonstrate compliance within 60 days after achieving the maximum production rate at which Banbury Mixer 110 will be operated but in no event later than 180 days after start-up of Banbury Mixer 110. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. (9VAC5-80-110 and Condition 16 of 12/3/14 permit)

77. Mixing Equipment (Alt 1) – Testing: The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. (9VAC5-50-30, 9VAC5-80-110, and Condition 55 of 12/3/14 Permit)

Mixing Reporting - Alternative 1

78. Mixing Equipment (Alt 1) – Compliance Assurance Monitoring (CAM): The permittee shall submit CAM reports for each PSEU as part of the Title V semi-annual monitoring reports required by General Condition 204 of this permit to the Blue Ridge Regional Office. Such reports shall include at a minimum:

- a. Identification of the PSEU for which the report is made;
- b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- d. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9VAC5-80-110 F and 40 CFR 64.9(a))

79. **Mixing Equipment – Reporting (LRR Ph1): Initial Notifications** - The permittee shall furnish written notification to the Blue Ridge Regional Office of:

- a. The actual date on which construction of Banbury Mixer 110 commenced within 30 days after such date.
- b. The actual date on which shutdown of Banbury Mixer 3 occurred within 15 days of such date.
- c. The actual date on which start-up of Banbury Mixer 110 occurred within 15 days of such date.
- d. The anticipated date of RTO performance tests required by Condition 76 postmarked at least 30 days prior to such date

(9VAC5-80-110 and Condition 17 of 12/3/14 permit)

80. **Condition for Granting 12/3/14 Permit** – (LRR, Ph1): Until the end of the contemporaneous period for the permit approval dated 12/3/14, if any physical change or change in method of operation of the source results in additional PM2.5 emissions above those already accounted for in the permit application as defined in the Introduction to that permit, the owner shall submit a revised Net Emissions Increase calculation that includes the additional PM2.5. For the purposes of the permit dated 12/3/14, the end of the contemporaneous period occurs when the last emissions unit approved as part of that permit begins to emit. The report shall be in writing and shall be submitted to the Blue Ridge Regional Office 30 days before such additional physical change or change in the method of operation.

(9VAC5-80-110 and Condition 56 of 12/3/14 permit)

Mixing Limitations - Alternative 2

81. **Mixing Equipment – Limitations (LRR Ph2): Permanent Shutdown** – Banbury Mixer 2 (EU002) shall cease operation no later than the date of the initial start-up of Banbury Mixer 111 (EU0111) or Banbury Mixer 112 (EU0112), whichever occurs earlier. Reactivation of EU002 will be considered a physical change to the stationary source. For the purposes of this permit, EU002 includes the mixer and the associated dump sink, airveyor, pelletizer, slurry dip, take-away conveyor, shaker cooler units 1 & 2, and finished pellet conveyor.

(9VAC5-80-110 and Condition 19 of 12/3/14 Permit)

82. **Mixing Equipment – Limitations (LRR Ph2): Control Technology Review** – The permittee shall submit reviews of the determinations of best available control technologies at the latest reasonable time that occurs no later than 18 months prior to commencement construction of Banbury Mixer 111 or 112, whichever occurs earlier.

(9VAC5-80-110 and Condition 20 of 12/3/14 Permit)

83. **Mixing Equipment – Limitations (LRR Ph2): Emission Controls** – VOC emissions from each Banbury Mixer (EU0110, EU0111 and EU0112) shall be controlled by a

Regenerative Thermal Oxidizer (RTO-1). Upon DEQ's written acceptance of the performance testing of RTO-1 required by Condition 114, the minimum combustion chamber temperature for the RTO-1 shall be maintained at or above the value established during that performance test when any mixer is processing rubber compounds which include either High Temperature Coupling Agent (HTCA) or Low Temperature Coupling Agent (LTCA).

For the purposes of the LRR Ph2 conditions of this permit, *Coupling Agent* means a liquid or solid chemical additive mixed into a rubber compound to ensure that silica in the given formulation becomes an integral part of the rubber matrix on a molecular level; *High Temperature* means a rubber compound recipe temperature of 300°F or greater for any single "pass" of that rubber compound through the mixer; *Low Temperature* means a rubber compound recipe temperature of 250°F or greater but less than 300°F for any single "pass" of that rubber compound through the mixer; and *Sulfur Donor* means Low Temperature Coupling Agent additives when mixed at compound recipe temperatures of less than 250°F.

RTO1 shall be provided with adequate access for inspection.
(9VAC5-80-110 and Condition 21 of 12/3/14 permit)

84. Mixing Equipment – Limitations (LRR Ph2): Control Efficiency – RTO-1 shall maintain a control efficiency for VOC from Banbury Mixers 110, 111, and 112 of no less than 98 percent to be demonstrated by stack test. The specified control efficiency applies during any combination of simultaneous or individual operation of the three mixers.
(9VAC5-80-110 and Condition 22 of 12/3/14 permit)
85. Mixing Equipment – Limitations (LRR Ph2): Emission Controls – Particulate emissions from each Banbury Mixer (EU0110, EU0111 and EU0112) shall be controlled by fabric filter. Each fabric filter shall be provided with adequate access for inspection and shall be in operation when the respective mixer is operating.
(9VAC5-80-110 and Condition 23 of 12/3/14 permit)
86. Mixing Equipment – Limitations (LRR Ph2): Throughput - The throughput of rubber compounds through each Banbury Mixer (EU0110, EU0111 and EU0112) shall not exceed 150×10^6 pounds per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 26 of 12/3/14 permit)
87. Mixing Equipment – Limitations (LRR Ph2): Fuel - The approved fuel for RTO-1 is natural gas. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110 and Condition 27 of 12/3/14 permit)

88. Mixing Equipment – Limitations (LRR Ph2): Process Emission Limits - Emissions from the operation of each Banbury Mixer (EU0110, EU0111 and EU0112) shall not exceed the limits specified below:

Particulate Matter (PM)	0.01 gr/dscf	---
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(9VAC5-80-110 and Condition 28 of 12/3/14 permit)

89. Mixing Equipment – Limitations (LRR Ph2): Process Emission Limits - Emissions from the operation of each Banbury Mixer (EU0110, EU0111 and EU0112) and RTO-1 shall not exceed the limits specified below:

PM10	0.19 lbs/hr	0.83 tons/yr
PM2.5	0.19 lbs/hr	0.83 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 85, and 111.

(9VAC5-80-110 and Condition 29 of 12/3/14 permit)

90. Mixing Equipment – Limitations (LRR Ph2): Process Emission Limits - Emissions from the operation of each Banbury Mixer (EU0110, EU0111 and EU0112) and RTO-1, as measured at the RTO exit, shall not exceed the limits specified below:

Volatile Organic Compounds (including ethanol)	2.50 lb/ton RUBBER	93.7 tons/yr
Ethanol	---	92.6 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 84 and 111.

(9VAC5-80-110 and Condition 30 of 12/3/14 permit)

91. Mixing Equipment – Limitations (LRR Ph2): Plantwide Emission Limits Related to Operation of Banbury Mixers 110, 111 & 112 – Excluding the ethanol emissions as limited by Condition 90, ethanol emissions throughout the facility from use of coupling agents, including sulfur donors, in each Banbury Mixer 110, 111, and 112 shall not exceed the limit specified below:

Ethanol	---	375.1 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 111.
(9VAC5-80-110 and Condition 31 of 12/3/14 permit)

92. Mixing Equipment – Limitations (LRR Ph2): Visible Emission Limit - Visible emissions from RTO-1 shall not exceed 10 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-110 and Condition 32 of 12/3/14 permit)
93. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Emission Controls - Particulate emissions from each Banbury mixer 1 & 4 thru 9 shall be controlled by a fabric filter.
(9VAC5-80-110 and Condition 40.B of 12/3/14 permit)
94. Mixing Equipment (Alt 2) – Limitations: Particulate emissions from the takeaway conveyors serving Banbury mixers 7, 8, and 9 shall be controlled by a scrubber. Each scrubber shall be provided with adequate access for inspection and equipped with a device to continuously measure the differential pressure through the scrubber. When a mixer is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating.
(9VAC5-80-110 and Condition 41 of 12/3/14 Permit)
95. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Processing (Pelletized Rubber) - The Goodyear Danville facility shall produce no more than zero tons of pelletized rubber compounds per year, calculated monthly as the sum of each consecutive 12-month period.
(9VAC5-80-110 and Condition 44.B of 12/3/14 permit)
96. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Operational Limits, Mixing - The permittee shall not modify the dust collection system associated with the Banbury mixers (emission points currently controlled by fabric filters BBDC1 &

BBDC4 thru BBDC9) in a manner that results in an increase in total volume of exhaust air.
 (9VAC5-80-110 and Condition 45.B of 12/3/14 permit)

97. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Emission Limits, Mixing - Particulate emissions from each fabric filter associated with a Banbury mixer (BBDC1 & BBDC4 thru BBDC9) shall not exceed 0.01 grains/ dry standard cubic foot of exhaust air.
 (9VAC5-80-110 and Condition 46.B of 12/3/14 permit)
98. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Visible emissions from each emission point associated with a Banbury mixer (as indicated below) shall not exceed the six-minute average opacity limit indicated below, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

Emission Point	Emission Point ID	VE Limit
Fabric Filters serving Banbury Units 1 & 4 thru -9 (BBDC1 & BBDC4 thru BBDC9)	DC-VH72, EP-007, DC-VV61, EP-014, DC-VU/E21, DC-W/E31, DC-VBB21	5% opacity
Fabric Filters serving Dump Sinks 1, 4 & 5-6 (DSDC1 & DSDC2)	DC-VR71	5% opacity
Scrubbers serving Banbury Units 7, 8, & 9 (BB7SCR, BB8SCR, BB9SCR)	SCRB-VU/E42, SCRB-W/E71, SCRB-VBB51	5% opacity
Other Emission Points	EP-002, EP-006, EP-009, EP-013	20% opacity ^b

^b Except for one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

Visible emissions shall be determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
 (9VAC5-40-80, 9VAC5-50-80, 9VAC5-80-110, and Condition 52.B of 12/3/14 Permit)

99. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Emission Limits, Mixing - VOC emissions from all Banbury mixers B1 & 4 thru 9 shall not exceed 147 tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance with the emission limit may be determined as follows:

$$\text{VOC}_{\text{MIXING}} = E_{\text{MIXING}} + (EF_{\text{MIXING}}) (\text{Quantity of rubber mixed, in tons})$$

Where:

$\text{VOC}_{\text{MIXING}}$ = VOC Emissions (in tons) from Banbury mixer operation

E_{MIXING} = Ethanol emissions (in tons), calculated as specified in Condition 100, below

EF_{MIXING} = DEQ-approved emission factor for non-ethanol VOC from mixing, in lb/ton of rubber mixed

(9VAC5-80-110 and Condition 47.B of 12/3/14 permit)

100. Mixing Equipment – Limitations (2002 as amended 2014 Ph2): Emission Limits, Mixing - Ethanol emissions from each Banbury mixer (B1 & 4 thru 9) shall not exceed 21.0 tons per year, calculated monthly as the sum of each consecutive 12-month period. Upon startup of Banbury Mixer 111 (EU0111) or 112 (EU0112)

whichever occurs earlier, for the coupling agents used in Banbury mixers B1 & 4 thru 9, compliance with the emission limit may be determined as follows:

$$E_{\text{MIXING}} = (0.25) (0.171) (CA_{\text{LOW}}) + (0.75) (0.194) (CA_{\text{HIGH}})$$

Where:

E_{MIXING} = Ethanol Emissions (in tons) from the Banbury mixer operation
 CA_{LOW} = See condition 101
 CA_{HIGH} = See condition 101

(9VAC5-80-110 and Condition 48.B of 12/3/14 permit)

101. Facility Wide – Limitations (2002 as amended 2014, Ph 2: Plantwide Emission Limits Related to Operation of Banbury Mixers 1 & 4 thru 9 - Ethanol emissions throughout the facility from use of coupling agents and sulfur donors in Banbury Mixers 1 & 4 thru 9 shall not exceed 322.4 tons per year, calculated monthly as the sum of each consecutive 12 month period. Upon startup of Banbury Mixer 111 (EU0111) or 112 (EU0112) whichever occurs earlier, for the coupling agents and sulfur donors used in Banbury mixers B1 & 4 thru 9, compliance with the emission limit may be determined as follows:

$$E_{\text{PLANTWIDE, BM1 \& 4 thru 9}} = 0.171 \times (CA_{\text{LOW}} + SD) + 0.194 \times (CA_{\text{HIGH}})$$

Where:

$E_{\text{PLANTWIDE}}$ = Plantwide ethanol emissions related to specified Banbury Mixers, in tons per year
 CA_{LOW} = Quantity (in tons) of coupling agent used in low temperature formulations (low temperature means greater than or equal to 250°F but less than 300°F)
 CA_{HIGH} = Quantity (in tons) of coupling agent used in high temperature formulations (high temperature means equal to or greater than 300°F)
 SD = Quantity (in tons) of coupling agent functioning as sulfur donor in formulations which are mixed at temperatures less than 250°F

(9VAC5-80-110 and Condition 49.B of 12/3/14 permit)

102. Facility Wide - Limitations (2002 as amended 2014, Ph 2): Approved Formulations - Upon startup of Banbury Mixer 111 (EU0111) or 112 (EU0112) whichever occurs earlier, the permittee is limited to the use in Banbury mixers B1 & 4 thru 9, of coupling agents with ethanol generation rates less than or equal to those identified in the application identified in Condition 37 of the 12/3/14 permit ("equivalent formulations"). The permittee may use alternative or additional coupling agents provided the following conditions are met:

- ethanol emission limits in Conditions 100 and 101 are not exceeded,
- the alternative formulations do not result in emissions of additional pollutants,
- for each equivalent formulation, notification of usage (including MSDS and calculations supporting the ethanol generation rate) shall be provided to Blue Ridge Regional Office at least 30 days prior to initial usage, and

- d. for each formulation having an ethanol generation rate greater than those proposed in the application referenced in Condition 37 of the 12/3/14 permit, prior written approval of formulation usage and the equation used for calculating emissions shall be obtained from the Blue Ridge Regional Office

(9VAC5-80-110 and Condition 50 of 12/3/14 permit)

Mixing Maintenance/Operating Procedures - Alternative 2

103. Mixing Equipment – Maintenance/Operating Procedures: The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9VAC5-50-20 E and Condition 60 of 12/3/14 Permit)

Mixing Monitoring - Alternative 2

104. Mixing Equipment – Monitoring (LRR Ph2): Monitoring Devices – RTO-1 shall be equipped with a device to continuously measure and record the temperature in the combustion chamber. For the purposes of this condition, “continuously” shall mean that whenever the RTO is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring and recording) every 15 minutes. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the RTO is operating.

(9VAC5-80-110 and Condition 24 of 12/3/14 permit)

105. Mixing Equipment – Monitoring (LRR Ph2): Monitoring Devices –Each fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. For the purposes of this condition, “continuously” shall mean that whenever the respective mixer (EU0110, EU0111 or EU0112) is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring) every 15 minutes. When the unit is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the respective mixer (EU0110, EU0111 or EU0112) is operating. (9VAC5-80-110 and Condition 25 of 12/3/14 permit)
106. Mixing Equipment – Monitoring (2002 as amended 2014 Ph2): Each fabric filter for Banbury mixers 1 & 4 thru 9 shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. When a mixer is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. Each monitoring device shall be installed, maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the Banbury mixer is operating. (9VAC5-80-110 and Condition 40.B of 12/3/14 permit)
107. Mixing Equipment (Alt 2)– Monitoring: At least one time per week an observation for the presence of visible emissions from each mixing line stack (each emission point identified in Condition 98 as an “Other Emission Point”) shall be made. If visible emissions are observed the permittee shall:
- a. take timely corrective action and re-conduct the observation for the presence of visible emissions to ensure that the mixer has resumed operation with no visible emissions, or
 - b. conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the affected emission point are less than or equal to the respective value listed in Condition 98. If any of the 15-second observations exceeds the respective value, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the affected unit (mixer or control device) resumes operation within the respective opacity value.

Additionally, following any observation that detects the presence of visible emissions, a daily observation for the presence of visible emissions shall be made on each of the subsequent seven (7) days when the relevant mixer is operating.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.

(9VAC5-80-110 E)

108. Mixing Equipment (Alt 2) – Monitoring: At a frequency of at least once every five years, the permittee shall conduct a stack test for PM from at least one fabric filter controlling emissions from a Banbury mixer (BBDC1 & BBDC4 thru BBDC9) to demonstrate compliance with the emission limit in Condition 97 of this permit. Unless otherwise requested by the Blue Ridge Regional Office, performance testing required by this condition shall not be repeated for a given fabric filter until all other fabric filters have been tested. The test shall be conducted and reported and data reduced as set forth in 9VAC5-40-30 or 9VAC5-50-30 as applicable. The details of the tests shall be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Blue Ridge Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit. (9VAC5-80-110, 9VAC5-40-30, and 9VAC5-50-30)

109. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTO (RTO-1) controlling VOC from the Banbury Mixers 110, 111, and 112. For the purposes of Alternative 2, the RTO controlling VOC from the Banbury Mixers 110, 111, and 112 is referred to as “PSEU 1:” with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 1) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition 110.g; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition 110.h; or (3) otherwise approved by the DEQ conforming with Condition 110.a of this section, including, but not limited to, changes initiated by DEQ. (9VAC5-80-110 E and 40 CFR 64.6(c))

110. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): Additional CAM requirements for PSEU 1 including its Quality Improvement Plan threshold are:

- a. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): Each monitoring approach shall be designed and implemented in compliance with 40 CFR 64.3(b) or (d). If a monitoring approach uses a monitoring device, the device shall be operated according to manufacturer’s specifications, unless other

methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:

- i. Indicator;
- ii. Measurement Approach;
- iii. Indicator Range or Condition(s) for Range Development ; and
- iv. The following performance criteria:
 1. Data Representativeness;
 2. Verification of Operational Status
 3. QA/QC Practices and Criteria
 4. Monitoring Frequency
 5. Data Collection Procedures
 6. Averaging Period

Changes to the CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9VAC5-80-230.

(9VAC5-80-110 E and 40 CFR 64.6(c))

- b. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
(9VAC5-80-110 E and 40 CFR 64.6(c))
- c. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): If a monitoring approach uses a monitoring device, at all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(9VAC5-80-110 E and 40 CFR 64.7(b))
- d. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the PSEU is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9VAC5-80-110 E and 40 CFR 64.7(c))

- e. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): Upon detecting an excursion or exceedance, the permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
 (9VAC5-80-110 E and 40 CFR 64.7(d)(1))
- f. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
 (9VAC5-80-110 E and 40 CFR 64.7(d)(2))
- g. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition 206) notify the Blue Ridge Regional Office and submit a revised CAM Plan for approval to the Blue Ridge Regional Office to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
 (9VAC5-80-110 E, 40 CFR 64.7(e) and 40 CFR 64.6(c))
- h. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): For the PSEU, the Quality Improvement Plan (QIP) threshold shall be as shown in the following table:

PSEU			QIP Triggering Threshold
ID	Condition No.	Pollutant	
PSEU 1	109	VOC	5% for the RTO operating time that is required in accordance with condition 83

For any PSEU, if the number of exceedances or excursions exceeds its threshold in the above table, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a QIP in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to the CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the Blue Ridge Region within 30 days of the revision date. For the purposes of this condition, the most recent version of the CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.

(9VAC5-80-110 E and 40 CFR 64.8(a) and (b))

- i. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10. (9VAC5-80-110 and 40 CFR 64.10)
- j. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): See also CAM recordkeeping requirements in condition 113, and CAM reporting requirements condition 116. (9VAC5-80-110)

Mixing Recordkeeping - Alternative 2

111. Mixing Equipment – Recordkeeping (LRR Ph2): On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

- a. The total annual throughput of rubber compounds through each Banbury Mixer (EU0110, EU0111 and EU0112) calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
- b. For each Banbury Mixer (EU0110, EU0111 and EU0112), the annual consumption of each coupling agent, in units of lb_{COUPLING AGENT} / yr, and sulfur donor, in units of lb_{SULFUR DONOR} / yr, each calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,

- c. For each Banbury Mixer (EU0110, EU0111 and EU0112), the annual throughput, calculated monthly as the sum of each consecutive 12-month period, and manufacturing specification sheet for each rubber compound containing coupling agent or sulfur donor. Specification sheets shall include the identity and quantity of each coupling agent, in units of $\text{lb COUPLING AGENT} / \text{lb RUBBER}$, the identity and quantity of each sulfur donor, in units of $\text{lb SULFUR DONOR} / \text{lb RUBBER}$, and the maximum mixing temperature for each pass for the compound,
- d. For each coupling agent or sulfur donor used in Banbury Mixers 110, 111 or 112 (EU0110, EU0111 and EU0112), the Material Safety Data Sheet (MSDS) or other vendor information showing the composition, and supporting calculations needed to derive the emission rate of ethanol in units of $\text{lb ETHANOL} / \text{lb COUPLING AGENT}$ or $\text{lb ETHANOL} / \text{lb SULFUR DONOR}$,
- e. For each Banbury Mixer (EU0110, EU0111 and EU0112), annual ethanol emissions, calculated monthly as the sum of each consecutive 12-month period calculations to demonstrate compliance with the ethanol emission limitations in Conditions 90 and 91. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
- f. For each Banbury Mixer (EU0110, EU0111 and EU0112), annual PM₁₀ and PM_{2.5} emissions calculations to verify compliance with the VOC emission limitations in Condition 89, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
- g. Each Banbury Mixer (EU0110, EU0111 and EU0112), annual VOC emissions calculations to verify compliance with the VOC emission limitations in Condition 90, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months,
- h. Operation and control device monitoring records for RTO-1 as required in Condition 104,
- i. Operation and control device monitoring records for fabric filter as required in Condition 105,
- j. Results of all stack tests and performance evaluations,
- k. Records sufficient to demonstrate whether construction within Phase 2 is continuous.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110 and Condition 33 of 12/3/14 permit)

112. Mixing Equipment – Recordkeeping (2002 as amended 2014 Ph2): The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. results of any required opacity observation of each mixing line stack (as identified in Condition 107) along with any corrective actions,
 - b. Annual production of cured rubber compounds related to Banbury Mixers 1 & 4 thru 9 (in tons), calculated monthly as the sum of each consecutive 12-month period. (Condition 54.a.B of 12/3/14 permit)
 - c. Annual production of pelletized rubber compounds manufactured in Banbury mixers 1 & 4 thru 9 (in tons), calculated monthly as the sum of each consecutive 12-month period, (Condition 54.b.B of 12/3/14 permit)
 - d. Annual consumption of each coupling agent and sulfur donor used in Banbury Mixers 1 & 4 thru 9 (in tons), calculated monthly as the sum of each consecutive 12-month period. (Condition 54.c.B of 12/3/14 permit)
 - e. For each Banbury mixer (B1 & 4 thru 9), throughput and manufacturing specification sheets for each formulation containing coupling agent or sulfur donor. Specification sheets shall include the identity and quantity of each coupling agent or sulfur donor and the maximum mixing temperature for the formulation, (Condition 54.d.B of 12/3/14 permit)
 - f. For each coupling agent or sulfur donor used, Material Safety Data Sheets (MSDS) or other vendor information showing the composition, and supporting calculations needed to derive the emission rate of ethanol from mixing and curing processes. (Condition 54.e of 12/3/14 permit)
 - g. records of maintenance or construction activities performed on the dust collection system for the Banbury mixers (emission points currently controlled by fabric filters BBDC1 & BBDC4 thru BBDC9), sufficient to demonstrate that there has been no increase in the total air handling capacity of the dust collection system, (Condition 54.k.B of 12/3/14 permit)

- h. monthly and annual VOC emission calculations to verify compliance with the VOC emission limitations in Condition 99. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period, (Condition 54.i.B of 12/3/14 permit)
- i. monthly and annual ethanol emission calculations to verify compliance with the ethanol emission limitations in Condition 100 and 101. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period, (Condition 54.h.B of 12/3/14 permit)
- j. Scheduled and unscheduled maintenance, and operator training (Condition 54.l of 12/3/14 permit) and
- k. test report for the stack test required by Condition 108

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50, 9VAC5-80-110, and Condition 54 of 12/3/14 Permit)

113. Mixing Equipment (Alt 2) – Recordkeeping: Compliance Assurance Monitoring (CAM) Recordkeeping: The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (9VAC5-80-110 F and 40 CFR 64.9(b))

Mixing Testing - Alternative 2

114. Mixing Equipment – Testing (LRR Ph2): Stack Test - Performance tests shall be conducted for VOC from RTO-1 to determine compliance with the control efficiency requirements contained in Condition 84. The tests shall be performed, reported and demonstrate compliance within 60 days after achieving the maximum production rate at which Banbury Mixer 111 will be operated but in no event later than 180 days after start-up of Banbury Mixer 111, and within 60 days after achieving the maximum production rate at which Banbury Mixer 112 will be operated but in no event later than 180 days after start-up of Banbury Mixer 112. Tests shall be conducted and reported and data reduced as set forth in 9VAC5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged with the Blue Ridge Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing.
(9VAC5-80-110 and Condition 34 of 12/3/14 permit)
115. Mixing Equipment (Alt 2) – Testing: The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-50-30, 9VAC5-80-110, and Condition 55 of 12/3/14 Permit)

Mixing Reporting - Alternative 2

116. Mixing Equipment (Alt 2) – Compliance Assurance Monitoring (CAM): The permittee shall submit CAM reports for the PSEU as part of the Title V semi-annual monitoring reports required by General Condition 204 of this permit to the Blue Ridge Regional Office. Such reports shall include at a minimum:
- a. Identification of the PSEU for which the report is made;
 - b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - d. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
- (9VAC5-80-110 F and 40 CFR 64.9(a))
117. Mixing Equipment – Reporting (LRR Ph2): Initial Notifications/Submittals - The permittee shall furnish written notification to the Blue Ridge Regional Office of:
- Notifications
- a. The actual date on which construction of Banbury Mixer 111 commenced within 30 days after such date.
 - b. The actual date on which construction of Banbury Mixer 112 commenced within 30 days after such date.
 - c. The actual date on which shutdown of Banbury Mixer 2 occurred within 15 days of such date.
 - d. The actual date on which start-up of Banbury Mixer 111 occurred within 15 days of such date.
 - e. The actual date on which start-up of Banbury Mixer 112 occurred within 15 days of such date.
 - f. The anticipated dates of RTO performance tests required by Condition 114 postmarked at least 30 days prior to such date.
- Submittal
- g. The control technology review required by Condition 82.
- (9VAC5-80-110 and Condition 35 of 12/3/14 permit)

118. **Condition for Granting 12/3/14 Permit** – (LRR, Ph2): Until the end of the contemporaneous period for the permit approval dated 12/3/14, if any physical change or change in method of operation of the source results in additional PM_{2.5} emissions above those already accounted for in the permit application as defined in the Introduction to that permit, the owner shall submit a revised Net Emissions Increase calculation that includes the additional PM_{2.5}. For the purposes of the permit dated 12/3/14, the end of the contemporaneous period occurs when the last emissions unit approved as part of that permit begins to emit. The report shall be in writing and shall be submitted to the Blue Ridge Regional Office 30 days before such additional physical change or change in the method of operation.
(9VAC5-80-110 and Condition 56 of 12/3/14 permit)

Rubber Extruding/Calendering Equipment Requirements

Extruding Limitations

119. Quad-Extruder line (EU54) Limitations: Throughput - The throughput of rubber through the Quad-Extruder line (EU54) shall not exceed 222×10^6 pounds per year, calculated monthly as the sum of each consecutive 12-month period. Of this allowable throughput of rubber, no more than 136×10^6 pounds per year shall be extruded as tire treads. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110 and Condition 3 of 2/6/08 permit)

120. Quad-Extruder line (EU54) Limitations: Process Emission Limits - Emissions from the operation of the Quad-Extruder line (EU54) shall not exceed the limits specified below:

Volatile Organic Compounds	39.44 tons/yr
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Compliance with this emission limit may be determined as stated in Condition 123.
(9VAC5-80-110 and Condition 6 of 2/6/08 permit)

121. Quad-Extruder line (EU54) Limitations: Requirements by Reference – Upon the startup date of manufacturing components for tires with a bead diameter less than or equal to 19.7 inches, except where this permit is more restrictive than the applicable requirement, the Quad-Extruder line (EU54) shall be operated in compliance with the requirements of 40CFR60, Subpart BBB – Standards of Performance for the Rubber Tire Manufacturing Industry.
(9VAC5-80-110, 9VAC5-50-400, 9VAC5-50-410, and Condition 4 of 2/6/08 permit)

Extruding/Calendering Recordkeeping

122. Extruding/Calendering Equipment – Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to calculate emissions from the calendering and extruding equipment (including the DDM machine (DDM1) but excluding the Quad-Extruder line (EU54)). The content and format of such records shall be arranged with the Blue Ridge Regional Office. These

records shall include, but are not limited to, the quantity of rubber extruded and calendered, calculated monthly as the sum of each consecutive 12-month period. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50)

123. Quad-Extruder line (EU54) Recordkeeping: On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. Annual throughput of rubber through the Quad-Extruder line, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - b. Annual throughput of rubber through the Quad-Extruder line extruded as treads, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - c. Monthly emissions calculations for VOC (in tons) from the Feed Quad-Extruder Line (including the extruder, the end-cementing operation, and the ink marking station). Unless otherwise approved in writing by the Blue Ridge Regional Office, each monthly calculation shall include.
 - (i) For the extruder contribution:
 - (1) Monthly throughput of each rubber compound type through the Quad-Extruder, and
 - (2) The origin and value of all emission factors relied upon for purposes of calculating actual emission rates and the equations used in these calculations.
 - (ii) For the end-cementing contribution:
 - (1) A monthly material balance of VOC (in tons) from the Quad-Extruder Line end-cementing operation (including cements, and cleaners), and
 - (2) The origin and value of all emission data relied upon for purposes of calculating actual emission rates and the equations used in these calculations.
 - (iii) For the ink marking station contribution:
 - (1) A monthly material balance of VOC (in tons) from the Quad-Extruder Line ink marking station (including inks, and cleaners), and

(2) The origin and value of all emission data relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

- d. Annual emissions calculations for VOC (in tons) from the Feed Quad-Extruder Line (including the extruder, the end-cementing operation, and the ink marking station) to verify compliance with the tons per year emissions limitation in Condition 120. Annual emissions shall be calculated monthly as the sum of 12 consecutive monthly totals as calculated in accordance with Condition 123c. The consecutive 12-month period sum shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110 and Condition 7 of 2/6/08 permit)

Extruding Testing

124. Quad-Extruder line (EU54) Testing: Emissions Testing - The Quad-Extruder line shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested and safe sampling platforms and access shall be provided.
- (9VAC5-80-110 and Condition 8 of 2/6/08 permit)

Extruding Reporting

125. Quad-Extruder line (EU54) Reporting: Condition for Granting 2/6/08 Permit – No project shall result in a major modification as defined in 9VAC5-80-1615 without receiving a permit pursuant to 9VAC5-80 Article 8. For projects which rely on excluded emissions (subsection c of the definition of “projected actual emissions” in 9VAC5-80-1615) to be exempt from review under 9VAC5-80 Article 8, the following conditions shall apply:

- a. The permittee shall maintain records sufficient to demonstrate the project did not result in a major modification as defined in 9VAC5-80-1615. Any increase in emissions without sufficient documentation shall be attributed to the project.
- b. If annual emissions after the project (12 month rolling total) exceed the “baseline actual emissions” (as defined in 9VAC5-80-1615) for the project by a “significant” amount (as defined in 9VAC5-80-1615), the permittee shall notify the Blue Ridge Regional Office within fifteen (15) days after the event.

For each applicable project, Conditions 125a and 125b are effective for the projection period as prescribed in the definition of “projected actual emissions” located in 9VAC5-80-1615. Nothing in this condition shall restrict when the Board may find the permittee in violation of 9VAC5-80-1625 A.

(9VAC5-80-110 and Condition 10 of 2/6/08 permit)

126. Quad-Extruder line (EU54) Reporting: The permittee shall furnish written notification to the Blue Ridge Regional Office of the actual date on which manufacturing of components for tires with a bead diameter less than or less to 19.7 inches begins within 30 days of such date.
(9VAC5-80-110, 9VAC5-50-400 and 9VAC5-50-410)

Curing and Finishing Equipment Requirements

Curing and Finishing Limitations

127. Curing and Finishing Equipment – Limitations: The throughput of cured rubber compounds shall not exceed 509.55×10^6 pounds per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9VAC5-80-110, and Condition 2 of 6/12/08 Permit)
128. Curing and Finishing Equipment – Limitations: Emissions from the operation of the curing process area shall not exceed the limits specified below:
- | | |
|--|------------|
| Uncontrolled, non-ethanol Volatile Organic Compounds | 86 tons/yr |
|--|------------|
- These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 127.
(9VAC5-80-110, Condition 7 of 9/4/02 permit, Condition 3 of 6/12/08 Permit, and Condition 43 of 12/3/14 permit)
129. Curing and Finishing Equipment – Limitations: Visible emissions from the exhaust stacks associated with the curing process area shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9VAC5-80-110, and Condition 4 of 6/12/08 Permit)
130. Curing and Finishing Equipment – Limitations: VOC emissions from Spot-Au-Matic tire balance pad units shall be controlled by a solvent vacuum recovery system. The solvent vacuum recovery system shall be provided with adequate access for inspection and shall be in operation when any Spot-Au-Matic tire balance pad unit is operating.
(9VAC5-50-260, 9VAC5-80-110, and Condition 39 of 12/3/14 Permit)
131. Curing and Finishing Equipment – Limitations: Requirements by Reference - Except where this permit is more restrictive than the applicable requirement, the Green Tire Spray Booth #4 (EU 102) shall be operated in compliance with the requirements of 40CFR60, Subpart BBB – Standards of Performance for the Rubber Tire Manufacturing Industry.
(9VAC5-80-110, 9VAC5-50-400 and 9VAC5-50-410)

132. Curing and Finishing Equipment – Limitations: The approved sprays applied in the Green Tire Spray Booth #4 (EU 102) are water-based green tire sprays as defined in 40CFR60.541; each containing less than 1.0 percent, by weight, of VOC. A change in spray may require a permit to modify and operate.
(9VAC5-80-110, 9VAC5-50-400 and 9VAC5-50-410)
133. Curing and Finishing Equipment – Limitations: For the approved inside green tire sprays applied in the Green Tire Spray Booth #4 (EU 102), the permittee shall discharge no more than 0.0026 lb of VOC per tire sprayed for each month. For the approved outside green tire sprays applied in EU 102, the permittee shall discharge no more than 0.021 lb of VOC per tire sprayed for each month.
(9VAC5-80-110, 9VAC5-50-400, 9VAC5-50-410 and 40CFR60.542(a)(5))

Curing and Finishing Monitoring

134. Curing and Finishing Equipment – Monitoring: At least one time per week a survey for visible emissions from the curing presses shall be conducted. The survey shall be conducted on the rooftop above the curing area, and shall include all stacks from the curing area. If visible emissions are observed from any stack, the permittee shall:
- a. identify the curing press(es) responsible for the visible emissions, take timely corrective action, and re-conduct the observation for the presence of visible emissions to ensure that the affected curing press(es) have resumed operation with no visible emissions, or
 - b. conduct a visible emission evaluation (VEE) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the curing operation are less than or equal to 5 percent opacity. If any of the 15-second observations exceeds 5% opacity, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the curing operation resumes within 5% opacity.

Additionally, following any observation that detects the presence of visible emissions, a daily observation for the presence of visible emissions shall be made on each of the subsequent seven (7) days when the relevant curing press(es) is(are) operating.

The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, name of the observer, whether or not there were visible emissions, any VEE recordings and any necessary corrective action.

(9VAC5-80-110 E)

Curing and Finishing Recordkeeping

135. Curing and Finishing Equipment – Recordkeeping: The permittee shall maintain records of emission data and operating parameters necessary to demonstrate

compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

- a. results of any opacity observations required by Condition 134 of each curing stack, along with any corrective actions,
- b. annual production of cured rubber compounds (in tons), calculated monthly as the sum of each consecutive 12-month period (Condition 54a A or B, as applicable, of 12/3/14 Permit),
- c. monthly and annual throughput of cured rubber compounds through the curing process area, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. (Condition 18a of 9/4/02 Permit and Condition 5 of 6/12/08 Permit), and
- d. monthly and annual VOC emission calculations to verify compliance with the VOC emission limitations in Condition 128 and Conditions 59 or 99 as applicable. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period (Condition 54i A or B, as applicable, of 12/3/14 Permit).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50, 9VAC5-80-110)

136. Curing and Finishing Equipment – Recordkeeping: The permittee for the Green Tire Spray Booth #4 (EU 102) using water-based sprays containing less than 1.0 percent by weight of VOC, as specified in Condition 137, shall maintain records of formulation data or the results of Method 24 analysis conducted to verify the VOC content of each spray.
(9VAC5-80-110, 9VAC5-50-400, 9VAC5-50-410 and 40CFR60.545(f))

Curing and Finishing Testing

137. Curing and Finishing Equipment – Testing: The permittee for the Green Tire Spray Booth #4 (EU 102) shall submit formulation data or the results of Method 24 analysis annually to verify the VOC content of each green tire spray material, provided the spraying formulation has not changed during the previous 12 months. If the spray material formulation changes, formulation data or Method 24 analysis of the new spray shall be conducted to determine the VOC content of the spray and reported within 30 days as required under Condition 139.
(9VAC5-80-110, 9VAC5-50-400, 9VAC5-50-410 and 40CFR60.543(b)(4))

Curing and Finishing Reporting

138. Curing and Finishing Equipment – Limitations: Condition for Granting 6/12/08 Permit – No project shall result in a major modification as defined in 9VAC5-80-1615 without receiving a permit pursuant to 9VAC5-80 Article 8. For projects which rely on excluded emissions (subsection c of the definition of “projected actual emissions” in 9VAC5-80-1615) to be exempt from review under 9VAC5-80 Article 8, the following conditions shall apply:

- a. The permittee shall maintain records sufficient to demonstrate the project did not result in a major modification as defined in 9VAC5-80-1615. Any increase in emissions without sufficient documentation shall be attributed to the project.
- b. If annual emissions after the project (12 month rolling total) exceed the “baseline actual emissions” (as defined in 9VAC5-80-1615) for the project by a “significant” amount (as defined in 9VAC5-80-1615), the permittee shall notify the Blue Ridge Regional Office within fifteen (15) days after the event.

For each applicable project, Conditions 138a and 138b are effective for the projection period as prescribed in the definition of “projected actual emissions” located in 9VAC5-80-1615. Nothing in this condition shall restrict when the Board may find the permittee in violation of 9VAC5-80-1625 A.
(9VAC5-80-110 and Condition 7 of 6/12/08 permit)

139. Curing and Finishing Equipment – Reporting: The permittee for the Green Tire Spray Booth #4 (EU 102) using water-based sprays containing less than 1.0 percent by weight of VOC shall furnish the Blue Ridge Regional Office, within 60 days initially and annually thereafter, formulation data or Method 24 results to verify the VOC content of the water-based sprays in use. If the spray formulation changes before the end of the 12-month period, formulation data or Method 24 results to verify the VOC content of the spray shall be reported within 30 days of the change.
(9VAC5-80-110, 9VAC5-50-400, 9VAC5-50-410 and 40CFR60.546(j))

Facility Wide Conditions

Facility Wide Limitations - Alternative 0

140. Facility Wide (Alt 0) – Limitations: VOC Work Practice Standards – Volatile organic compounds shall not be intentionally spilled, discarded in sewers, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9VAC5-80-110 and Condition 6 of 9/4/02 Permit)

141. Facility Wide (Alt 0) – Limitations: Ethanol emissions from use of coupling agents throughout the facility shall not exceed 449 tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance with the emission limit may be determined as follows:

$$E_{\text{PLANTWIDE}} = \sum R_i C_i$$

Where:

$E_{\text{PLANTWIDE}}$ = Plantwide ethanol emissions, in tons per year

R_i = Reaction constant for the coupling agent i

C_i = Quantity (in tons) of coupling agent i

(9VAC5-80-110, 9VAC5-50-260 and Condition 13 of 9/4/02 Permit)

142. Facility Wide (Alt 0) – Limitations: The permittee is limited to use of coupling agents approved in accordance with the following conditions:

- a. ethanol emission limits in Conditions 30 and 141 are not exceeded,
- b. the alternative formulations do not result in emissions of additional pollutants,
- c. prior written approval of formulation usage and the coupling agent-specific liberation and reaction constants shall be obtained from the Blue Ridge Regional Office,

(9VAC5-80-110 and Condition 14 of 9/4/02 Permit)

Facility Wide Limitations – Alternatives 1 and 2

143. Facility Wide – Limitations: VOC emissions from refresher solvent (including kanjine, 80/10/10, or alternative solvents) shall not exceed 3.6 pounds per ton of cured rubber throughput, calculated monthly as the average for each consecutive 12-month period.
(9VAC5-80-110, 9VAC5-50-260 and Condition 51 of 12/3/14 Permit)

144. Facility Wide – Limitations: VOC Work Practice Standards – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9VAC5-80-110, Condition 2 of 2/6/08 permit, and Condition 42 of 12/3/14 Permit)

Facility Wide Monitoring and Recordkeeping– Alternative 0

145. Facility Wide (Alt 0) – Limitations: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. Annual consumption of each coupling agent used (in tons), calculated monthly as the sum of each consecutive 12 month period. (Condition 18c of 9/4/02 Permit)
 - b. For each coupling agent used, liberation constant, reaction constant, and supporting information needed to derive the emission rate of ethanol from mixing and curing processes. (Condition 18e of 9/4/02 Permit)
 - c. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, HAP content, water content, and solids content for each ink, adhesive, or refresher solvent used. (Condition 18f of 9/4/02 Permit)
 - d. Emission calculations showing pounds of refresher solvent emitted per ton of cured rubber produced, calculated monthly as the average of each consecutive 12 month period. (Condition 18g of 9/4/02 Permit)
 - e. Monthly and annual ethanol emission calculations to verify compliance with the ethanol emission limitations in Condition 141. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period. (Condition 18h of 9/4/02 Permit)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50 and 9VAC5-80-110)

Facility Wide Monitoring and Recordkeeping– Alternatives 1 and 2

146. Facility Wide – Monitoring and Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. Material Safety Data Sheets (MSDS) or other vendor information showing VOC content, HAP content, water content, and solids content for each ink, adhesive, or refresher solvent used. (Condition 54.f of 12/3/14 permit)
 - b. Emission calculations showing pounds of refresher solvent emitted per ton of cured rubber produced, calculated monthly as the average of each consecutive 12 month period. (Condition 54.g of 12/3/14 permit)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-50-50 and 9VAC5-80-110)

147. Facility Wide – Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to the records as required by Conditions 80, 118, 125, and 138. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9VAC5-80-110)

TIRE MACT Conditions

The facility shall be operated in accordance with all applicable requirements of 40 CFR Part 63 Subpart XXXX for Rubber Tire Manufacturing (including applicable General Provisions contained in 40 CFR Part 63 Subpart A). All terms used in conditions derived from 40 CFR 63 Subpart XXXX shall have the meaning as defined in 40 CFR 63.2, 40 CFR 63.5982 (b) (1), 40 CFR 63.5982 (b) (4), and 40 CFR 63.6015.

Tire MACT Limitations

148. Tire MACT - Limitations: The permittee shall comply with the emission limitations contained in this section no later than July 11, 2005.
(9VAC5-80-110 and 40 CFR 63.5983 (b))
149. Tire MACT - Limitations: As specified in 40 CFR 63.5984 and 40 CFR 63 Subpart XXXX, Table 1, the permittee shall meet one of the following emission limits:
- a. Option 1 – HAP Constituent Option:
 - (1) Emissions of each HAP in 40 CFR Part 63 Subpart XXXX, Table 16 must not exceed 1,000 grams HAP per megagram (2 pounds per ton) of total cements and solvents used at the tire production affected source; and
 - (2) Emissions of each HAP not in 40 CFR Part 63 Subpart XXXX, Table 16 must not exceed 10,000 grams HAP per megagram (20 pounds per ton) of total cements and solvents used at the tire production affected source.
 - b. Option 2 – Production-based Option:

Emissions of HAP must not exceed 0.024 grams per megagram (0.00005 pounds per ton) of rubber used at the tire production affected source.
- The permittee shall be in compliance with the emission limits at all times.
(9VAC5-80-110, 40 CFR 63.5990 (a), and 40 CFR 63 Subpart XXXX, Table 1)

150. Tire MACT - Limitations: The permittee shall meet the emission limits in Condition 149 using either of the following methods:

- a. Purchase Alternative – Use only cements and solvents that, as purchased, contain no more HAP than allowed by the emission limits in Condition 149.a.
- b. Monthly Average Alternative – Use cements and solvents in such a way that the monthly average HAP emissions do not exceed the emission limits in Condition 149.b.

In accordance with 40 CFR 63 Subpart XXXX, the permittee may elect to meet Condition 150.b with or without use of a control device. Should the permittee elect to use a control device, the permittee shall request that the permit be amended to include additional applicable provisions.

(9VAC5-80-110, 40 CFR 63.5990 (a), and 40 CFR 63 Subpart XXXX, Table 1)

Tire MACT Continuous Compliance Requirements

151. Tire MACT – Continuous Compliance: The permittee shall demonstrate continuous compliance in accordance with 40 CFR 63.6004 and 40 CFR Subpart XXXX, Table 10. Deviations from continuous compliance shall be reported as specified in 40 CFR Subpart XXXX, Table 15, and Condition 204 of this permit. (9VAC5-80-110, 40 CFR 63.6004, and 40 CFR 63 Subpart XXXX, Table 10)

Tire MACT Notifications, Reporting, and Recordkeeping

152. Tire MACT – Notifications: The permittee shall submit additional notifications as specified in 40 CFR 63.6009 and 40 CFR 63 Subpart XXXX, Table 6. (9VAC5-80-110, 40 CFR 63.6009, and 40 CFR 63 Subpart XXXX, Table 6)

153. Tire MACT – Reporting: The permittee shall submit semiannual reports, or annual reports if requirements in 40 CFR 63.6010(f) are met, as specified in 40 CFR 63.6010 and 40 CFR 63 Subpart XXXX Table 15. Information required by these reports may be combined with the semiannual reports required by Condition 204 of this permit. (9VAC5-80-110, 40 CFR 63.6010, and 40 CFR 63 Subpart XXXX, Table 15)

154. Tire MACT – Recordkeeping: The permittee shall maintain records as specified in 40 CFR 63.6011, 40 CFR 63.6012, and 40 CFR 63 Subpart XXXX, Table 9. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years. (9VAC5-50-50, 9VAC5-80-110, 40 CFR 63.6011, 40 CFR 63.6012, and 40 CFR 63 Subpart XXXX, Table 9)

Tire MACT Additional Requirements (General Provisions)

155. Tire MACT – General Provisions: The permittee shall comply with applicable General Provisions pursuant to 40 CFR Part 63 Subpart A including those provisions identified as applicable in 40 CFR 63 Subpart XXXX, Table 17. (9VAC5-80-110, 40 CFR 63 Subpart A, and 40 CFR 63 Subpart XXXX, Table 17)

Supporting Equipment Requirements

Supporting Equipment Limitations

156. Supporting Equipment - Limitations: Particulate matter emissions from the Collmann Run-out tire grinder shall be controlled by a rotoclone. The rotoclone shall be provided with adequate access for inspection and shall be in operation when the Collmann Run-out tire grinder is operating.
(9VAC5-80-110 and Condition 3 of 6/15/2004 Permit)

157. Supporting Equipment - Limitations: The Collmann Run-out tire grinder shall be equipped with devices to continuously measure the differential pressure drop across the rotoclone. When the grinder is operating, the measured differential pressure shall be observed and recorded in a log not less than once each day. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the rotoclone is operating.
(9VAC5-80-110, and 6/15/2004 Permit)

158. Supporting Equipment - Limitations: Visible emissions from the Collmann Run-out tire grinder shall not exceed 10 percent opacity. Failure to meet the opacity limit because of the presence of water vapor shall not be a violation. This condition applies at all times except during startup, shutdown, and malfunction.
(9VAC5-80-110 and Condition 5 of 6/15/2004 Permit)

159. Supporting Equipment - Limitations: Emissions from the operation of the Collmann Run-out tire grinder shall not exceed the limits specified below:

Particulate Matter	0.85 lb/hr	3.7 tons/yr
PM-10	0.85 lb/hr	3.7 tons/yr

(9VAC5-80-110 and Condition 4 of 6/15/2004 Permit)

Supporting Equipment Maintenance/Operating Procedures

160. Supporting Equipment – Maintenance/Operating Procedures: The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts for air pollution control devices.

- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9VAC5-50-20 E and Condition 13 of 6/15/2004 Permit)

Supporting Equipment Recordkeeping

161. Supporting Equipment – Recordkeeping: The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

- a. Operation and control device monitoring records for the rotoclone as required in Condition 157.
(9VAC5-80-110)
- b. Monthly emissions calculations for PM and PM-10 from the Collmann Run-out tire grinder using calculation methods approved by the Blue Ridge Regional Office to verify compliance with the ton/yr emissions limitations in Condition 159.
(9VAC5-80-110 and Condition 6 of 6/15/2004 permit)
- c. Scheduled and unscheduled maintenance and operator training.
(9VAC5-80-110 and Condition 6 of 6/15/2004 permit)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

Supporting Equipment Testing

162. Supporting Equipment – Testing: The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9VAC5-80-110 and Condition 7 of 6/15/2004 Permit)

Emergency Engine Requirements

Emergency Engine Monitoring (EU061, EU062 and EU066)

163. Emergency Engine Opacity monitoring: Independently for each emergency engine (EU061, EU062 and EU066), at least one time in any month that the emergency engine operates, an observation for the presence of visible emissions from

the emergency engine stack shall be made. The presence of visible emissions shall require the permittee to:

- a. take timely corrective action such that the engine resumes operation with no visible emissions, or,
- b. conduct a visible emission evaluation (VEE), in accordance with EPA Method 9 (reference 40CFR60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions are 20 percent opacity or less. If any of the 15-second observations exceeds 20 percent opacity, the observation period shall continue for a total of sixty (60) minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions less than or equal to 20 percent opacity.

The permittee shall maintain an observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the engine has not been operated for any period during the month, it shall be noted in the observation log.
(9VAC5-80-110)

Fire Pump Engine EU061 Limitations

164. Fire Pump Engine EU061 Limitations: The approved fuel for the fire pump engine is diesel. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110)
165. Fire Pump Engine EU061 Limitations: When the fire pump engine is operating, the visible emissions from the fire pump engine stack shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity. This condition applies at all times except during startup, shutdown, or malfunction
(9VAC5-80-110 and 9VAC5-50-80)
166. Fire Pump Engine EU061 MACT Limitations: The fire pump engine shall meet the requirements for emergency stationary CI RICE in Table 2c, Requirements for Existing CI RICE at a Major Source of HAP, of 40CFR63 Subpart ZZZZ.
(9VAC5-80-110, 40CFR63.6602 and 40CFR63.6640(a))
167. Fire Pump Engine EU061 MACT Limitations: The owner or operator of the fire pump engine shall comply with the amount of annual operation in accordance with 40CFR63.6640(f).
(9VAC5-80-110 and 40CFR63.6640(f))
168. Fire Pump Engine EU061 MACT Limitations: The fire pump engine shall be operated and maintained in accordance with 40CFR63.6625(e).
(9VAC5-80-110 and 40CFR63.6625)

169. Fire Pump Engine EU061 MACT Limitations: The fire pump engine shall be operated and maintained in accordance with Table 8, Applicable General Requirements, of 40CFR63 Subpart ZZZZ.
(9VAC5-80-110 and 40CFR63.6665)

Fire Pump Engine EU061 Monitoring

170. Fire Pump Engine EU061 MACT Monitoring: The fire pump engine shall have a non-resettable hour meter.
(9VAC5-80-110 and 40CFR63.6625(f))

Fire Pump Engine EU061 Recordkeeping

171. Fire Pump Engine EU061 MACT Recordkeeping: The fire pump engine shall be keep operation and maintenance records in accordance with 40CFR63.6655(d) and (e).
(9VAC5-80-110, 40CFR63.6655 and 40CFR63.6660)

Fire Pump Engine EU061 Reporting

172. Fire Pump Engine EU061 MACT Reporting: The owner or operator shall report each instance in which the requirements of Condition 166 or Condition 169 were not met.
(9VAC5-80-110 and 40CFR63.6640(b))

Fire Pump Engine EU062 Limitations

173. Fire Pump Engine EU062 Limitations: The approved fuel for the fire pump engine is diesel. A change in the fuel may require a permit to modify and operate.
(9VAC5-80-110)
174. Fire Pump Engine EU062 Limitations: When the fire pump engine is operating, the visible emissions from the fire pump engine stack shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity. This condition applies at all times except during startup, shutdown, or malfunction.
(9VAC5-80-110 and 9VAC5-50-80)

Fire Pump Engine EU062 NSPS Requirements

175. Fire Pump Engine EU062 NSPS Emissions Standards: The fire pump engine shall meet the emissions standards in Table 4, Emission Standards for Stationary Fire Pump Engines, of 40CFR60 Subpart IIII. The owner or operator of the fire pump engine shall meet these emissions standards over the entire life of the engine.
(9VAC5-80-110, 40CFR60.4205(c), 40CFR60.4206, and 40CFR63.6590(c))
176. Fire Pump Engine EU062 NSPS Fuel Requirements: The owner or operator of the fire pump engine shall meet the applicable fuel requirements in accordance 40CFR60.4207 for displacements of less than 30 liters per cylinder.
(9VAC5-80-110 and 40CFR60.4207(b))

177. Fire Pump Engine EU062 NSPS compliance requirements: The owner or operator of the fire pump engine shall comply with:

- a. the engine certification requirements in accordance 40CFR60.4211(c)
- b. the applicable provisions of 40CFR60.4211(a), including but not limited to manufacturer's specifications, and
- c. the amount of annual operation in accordance with 40CFR60.4211(f).

(9VAC5-80-110 and 40CFR60.4211)

178. Fire Pump Engine EU062 NSPS general requirements: The fire pump engine shall be operated and maintained in accordance with Table 8, Applicable General Requirements, of 40CFR60 Subpart III.

(9VAC5-80-110 and 40CFR60.4218)

Fire Pump Engine EU062 Monitoring

179. Fire Pump Engine EU062 Monitoring: The fire pump engine shall have a non-resettable hour meter.

(9VAC5-80-110)

Emergency Lighting Generator EU066 Limitations

180. Emergency Lighting Generator EU066 Limitations: The approved fuel for the emergency lighting generator is diesel. A change in the fuel may require a permit to modify and operate.

(9VAC5-80-110)

181. Emergency Lighting Generator EU066 Limitations: When the emergency lighting generator is operating, the visible emissions from the generator stack shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity. This condition applies at all times except during startup, shutdown, or malfunction.

(9VAC5-80-110 and 9VAC5-50-80)

Emergency Lighting Generator EU066 NSPS Requirements

182. Emergency Lighting Generator EU066 NSPS Emissions Standards: The emergency lighting generator shall meet the certification emission standards for new nonroad CI engines, of 40CFR60.4202. The owner or operator of the emergency lighting generator shall meet these emissions standards over the entire life of the engine.

(9VAC5-80-110, 40CFR60.4205(b), 40CFR60.4206, and 40CFR63.6590(c))

183. Emergency Lighting Generator EU066 NSPS compliance requirements: The owner or operator of the emergency lighting generator shall meet the applicable fuel requirements in accordance 40CFR60.4207 for displacements of less than 30 liters per cylinder.

(9VAC5-80-110 and 40CFR60.4207(b))

184. Emergency Lighting Generator EU066 NSPS Limitations: The owner or operator of the emergency lighting generator shall comply with:
- a. the engine certification requirements in accordance 40CFR60.4211(c)
 - b. the applicable provisions of 40CFR60.4211(a), including but not limited to manufacturer's specifications, and
 - c. the amount of annual operation in accordance with 40CFR60.4211(f).
- (9VAC5-80-110 and 40CFR60.4211)
185. Emergency Lighting Generator EU066 NSPS general requirements: The emergency lighting generator shall be operated and maintained in accordance with Table 8, Applicable General Requirements, of 40CFR60 Subpart IIII.
(9VAC5-80-110 and 40CFR60.4218)
186. Emergency Lighting Generator EU066 NSPS monitoring: The owner or operator of the emergency lighting generator shall install a non-resettable hour meter.
(9VAC5-80-110 and 40CFR60.4209(a))
187. Emergency Lighting Generator EU066 NSPS recordkeeping: The owner or operator of the emergency lighting generator shall keep records of the operation of the engine in emergency and non-emergency service in accordance in accordance with 40CFR60.4214(b).
(9VAC5-80-110 and 40CFR60.4214)

Boiler MACT Conditions

Boiler MACT Limitations

188. Except where this permit is more restrictive, on or before the date specified in 40CFR63.7495 the industrial boilers (EU035, EU036, EU037 and EU038) at the Danville facility shall comply with the emission limits, and work practice standards of 40CFR63 Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.
(9VAC5-80-110 and 40CFR63 Subpart DDDDD)

Boiler MACT Monitoring

189. Except where this permit is more restrictive, on or before the date specified in 40CFR63.7495 the permittee shall meet all monitoring requirements of 40CFR63 Subpart DDDDD applicable to the industrial boilers (EU035, EU036, EU037 and EU038) at the Danville facility. The monitors shall be maintained and operated in accordance with 40CFR63 Subpart DDDDD.
(9VAC5-80-110 and 40CFR63 Subpart DDDDD)

Boiler MACT Testing

190. The permittee shall conduct all testing required in 40CFR63 Subpart DDDDD.
(9VAC5-80-110 and 40CFR63 Subpart DDDDD)

Boiler MACT Recordkeeping

191. Except where this permit is more restrictive, on or before the date specified in 40CFR63.7495 the permittee in accordance with 40CFR63 Subpart DDDDD, shall record and retain all information necessary to determine that the operation of the industrial boilers (EU035, EU036, EU037 and EU038) at the Danville facility are in compliance with the 40CFR63 Subpart DDDDD.
(9VAC5-80-110 and 40CFR63 Subpart DDDDD)

Boiler MACT Reporting

192. Except where this permit is more restrictive, on or before the date specified in 40CFR63.7495 the permittee in accordance with 40CFR63 Subpart DDDDD shall meet all applicable reporting requirements for the industrial boilers (EU035, EU036, EU037 and EU038) at the Danville facility.
(9VAC5-80-110 and 40CFR63 Subpart DDDDD)

Insignificant Emission Units

193. The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720 B)	Rated Capacity (9VAC5-80-720 C)
EU 043	Pigment Blender	(9VAC5-80-720 B)	PM	
EU 048	Clay Mix Slurry Station	(9VAC5-80-720 B)	PM	
EU 049	Clay Mix Slurry Station	(9VAC5-80-720 B)	PM	
EU 039- EU 041	Green (Aircraft) Tire Spray Booths (#1-#3)	(9VAC5-80-720 B)	VOC	
EU 047	Scrap Rubber Breakdown Mill and Refiner Mill	(9VAC5-80-720 B)	VOC/HAP	
EU 053	Repair Grinding	(9VAC5-80-720 B)	PM/VOC/HAP	
EU 056	Cooling Tower	(9VAC5-80-720 B)	PM	
EU 057	Repair Autoclave	(9VAC5-80-720 B)	VOC/HAP	
EU 058	Repair Presses	(9VAC5-80-720 B)	VOC/HAP	
EU 052	Parts washers (10)	(9VAC5-80-720 B)	VOC	
EU 063	Offline Milling Operations for Quadfeed Extruder	(9VAC5-80-720 B)	VOC/HAP	
EU 100	Slurry Mixer	(9VAC5-80-720 B)	PM	
EU 101	Steelastic Extruder	(9VAC5-80-720 B)	PM/VOC	
T 001	Fuel oil storage tank	(9VAC5-80-720 B)	VOC	
T 003-T008	Process oil tanks	(9VAC5-80-720 B)	VOC	
T 009	Used oil collection tank	(9VAC5-80-720 B)	VOC	
T010	Cherine Storage Tank	(9VAC5-80-720 B)	VOC	
T011	Diesel Storage tank	(9VAC5-80-720 B)	VOC	
T012	Gasoline	(9VAC5-80-720 B)	VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring,

recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

Permit Shield & Inapplicable Requirements

194. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR Part 60, Subpart D	New Source Performance Standard for Fossil-fuel Fired Steam Generators constructing after August 17, 1971	All boilers at Goodyear Danville have heat input capacity less than the applicability threshold of 250 MMBtu/hr.
40 CFR Part 60, Subpart Db	New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units	All boilers with heat input capacity of greater than or equal to the applicability threshold of 100 MMBtu/hr were installed prior to the effective date of November 25, 1985.
40 CFR Part 60, Subpart Dc	New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units	All boilers at the Goodyear Danville facility were installed prior to the effective date of June 9, 1989.
40 CFR Part 60, Subpart VVV	New Source Performance Standard for Polymeric Coating of Supporting Substrates Facilities	NSPS Subpart VVV applies to polymeric coating operations that have been installed or modified after April 30, 1987. In addition, if a polymeric coating line is subject to the requirements of Subpart VVV, any onsite coating mix operations directly associated with that coating line also become subject. The Fabric Calender and Unisteel Wire Calender operations are the only units at Goodyear Danville that potentially meet the definition of polymeric coating of a supporting substrate. However, both of these units were installed prior to the April 30, 1987 applicability date and neither has been modified. Accordingly, no equipment at the facility is subject to Subpart VVV.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9VAC5-80-140)

General Conditions

195. **General Conditions - Federal Enforceability** - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-110 N)

196. **General Conditions - Permit Expiration:** This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent, with 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9VAC5-80-80 B, C and F, 9VAC5-80-110 D and 9VAC5-80-170 B)
197. **General Conditions - Permit Expiration:** The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9VAC5-80-80 B, C and F, 9VAC5-80-110 D and 9VAC5-80-170 B)
198. **General Conditions - Permit Expiration:** If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.
(9VAC5-80-80 B, C and F, 9VAC5-80-110 D and 9VAC5-80-170 B)
199. **General Conditions - Permit Expiration:** No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.
(9VAC5-80-80 B, C and F, 9VAC5-80-110 D and 9VAC5-80-170 B)
200. **General Conditions - Permit Expiration:** If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9VAC5-80-80 B, C and F, 9VAC5-80-110 D and 9VAC5-80-170 B)
201. **General Conditions - Permit Expiration:** The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9VAC5-80-80 B, C and F, 9VAC5-80-110 D and 9VAC5-80-170 B)
202. **General Conditions – Recordkeeping and Reporting:** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-110 F)

203. **General Conditions – Recordkeeping and Reporting:** Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9VAC5-80-110 F)

204. **General Conditions – Recordkeeping and Reporting:** The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, or Compliance Assurance Monitoring (CAM) periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9VAC5-80-110 F)

205. **General Conditions – Annual Compliance Certification:** Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to DEQ and EPA no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9VAC5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9VAC5-80-110 K.5)

206. **General Conditions – Permit Deviation Reporting:** The permittee shall notify the Blue Ridge Region within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a

written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 204 of this permit.
(9VAC5-80-110 F.2 and 9VAC5-80-250)

207. **General Conditions – Failure/Malfunction Reporting:** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Blue Ridge Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Blue Ridge Region Office.
(9VAC5-20-180 C)
208. **General Conditions – Severability:** The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-110 G.1)
209. **General Conditions – Duty to Comply:** The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-110 G.2)
210. **General Conditions – Need to Halt or Reduce Activity not a Defense:** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-110 G.3)
211. **General Conditions – Permit Modification:** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-

2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC5-80-190 and 9VAC5-80-260)

212. **General Conditions – Property Rights:** The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-110 G.5)
213. **General Conditions – Duty to Submit Information:** The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9VAC5-80-110 G.6)
214. **General Conditions – Duty to Submit Information:** Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G.
(9VAC5-80-110 K.1)
215. **General Conditions – Duty to Pay Permit Fees:** The owner of any source for which a permit under 9VAC5-80-50 through 9VAC5-80-300 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 in addition to an annual permit maintenance fee consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9VAC5-80-2340, adjusted annually by the change in the Consumer Price Index.
(9VAC5-80-110 H, 9VAC5-80-340 C, and 9VAC5-80-2340 B)
216. **General Conditions – Fugitive Dust Emission Standards:** During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-40-90 and 9VAC5-50-90)

217. **General Conditions – Startup, Shutdown, and Malfunction:** At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9VAC5-50-20)

218. **General Conditions – Alternative Operating Scenarios:** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1.

(9VAC5-80-110 J)

219. **General Conditions – Inspection and Entry Requirements:** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110 K.2)

220. **General Conditions – Reopening For Cause:** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.

(9VAC5-80-110 L)

221. **General Conditions – Permit Availability:** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9VAC5-80-150 E)

222. **General Conditions – Transfer of Permits:** No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.

(9VAC5-80-160)

223. **General Conditions – Transfer of Permits:** In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.
(9VAC5-80-160)
224. **General Conditions – Transfer of Permits:** In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.
(9VAC5-80-160)
225. **General Conditions – Malfunction as an Affirmative Defense:** A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions 226, 227 and 228 are met.
226. **General Conditions – Malfunction as an Affirmative Defense:** The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
- a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.
 - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9VAC5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9VAC5-20-180 C.
- (9VAC5-80-250)
227. **General Conditions – Malfunction as an Affirmative Defense:** In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
(9VAC5-80-250)

228. **General Conditions – Malfunction as an Affirmative Defense:** The provisions of 9VAC5-80-250 are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.
(9VAC5-80-250)
229. **General Conditions – Permit Revocation or Termination for Cause:** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-190 C and 9VAC5-80-260)
230. **General Conditions – Duty to Supplement or Correct Application:** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9VAC5-80-80 E)
231. **General Conditions – Stratospheric Ozone Protection:** If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)
232. **General Conditions – Asbestos Requirements:** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40CFR61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40CFR61.145), Standards for Insulating Materials (40CFR61.148), and Standards for Waste Disposal (40CFR61.150).
(9VAC5-60-70 and 9VAC5-80-110 A.1)
233. **General Conditions – Accidental Release Prevention:** If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

234. **General Conditions – Changes to Permits for Emissions Trading:** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-110 I)

235. **General Conditions – Emissions Trading:** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
- b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

(9VAC5-80-110 I)

Compliance Assurance Monitoring Plan for PSEU 1– VOC from RTO1
Plan date: December 21, 2015

a. Indicator	Center bed combustion zone temperature.
b. Measurement Approach	Center bed combustion zone temperature shall be measured by thermocouple.
c. Indicator Range	Minimum center bed combustion zone temperature of equal to or greater than 1,400°F (or as updated by performance testing in accordance with condition 42 or 83, as applicable). An excursion is defined as a center bed combustion zone temperature of less than 1,400°F.
<u>d. Performance Criteria:</u>	
i. Data Representativeness	The minimum temperature for the center bed combustion zone will be derived from performance test data, which demonstrates compliance.
ii. Verification of Operational Status	Verifying that the RTO operates at or above the specified temperature will verify that the RTO is controlling VOCs as required.
iii. QA/QC Practices and Criteria	Goodyear will install, operate, and maintain thermocouples in the RTO. The accuracy of the thermocouple is checked annually at a minimum (and more frequently as needed) by calibration using a signal transmitter.
iv. Monitoring Frequency	Temperature measured at least once per 15-minutes.
v. Data Collection Procedures	Records of monitoring data, monitor performance data, corrective action, and quality improvement plans shall be maintained on site. All temperature data will be recorded and maintained electronically.
vi. Data Averaging Period	1-hr average, calculated on a 15 minute rolling basis. Monitor temperatures as documented at least every 15 minutes from the data acquisition. The minimum data requirement for a valid 1-hr average is two (2) valid 15-minute readings in the 1-hr period.

Compliance Assurance Monitoring Plan for PSEU 2– PM from Cyclone Separators (CL-01 and CL-02)
Plan Date: December 21, 2015

a. Indicator	Indicator 2-A: Opacity	Indicator 2-B: Visible Emission Evaluation (optional - to determine if Indicator 2-A excursion has occurred)
b. Measurement Approach	Visible emission observations conducted daily at the cyclone stack.	Method 9 VEE in accordance with 40 CFR 60, Appendix A conducted optionally to determine if an excursion occurs. Results recorded upon completion of each Method 9. If visible emissions are observed by Indicator 2-A and a Method 9 VEE is not conducted, then an excursion has occurred.
c. Indicator Range	An excursion is defined as the presence of any visible emission from the cyclone stack unless otherwise determined by Indicator 2-B.	An excursion is defined as an average opacity greater than 20% during one six-minute period in any one hour.
<u>d. Performance Criteria:</u>		
i. Data Representativeness	Visible Emission Observation	Method 9 VEE
ii. Verification of operational status	Observation of visible emissions indicates possible damage to cyclone.	Observation of visible emissions greater than 20% indicates corrective action which may include replacement or maintenance of cyclone.
iii. QA/QC Practices and Criteria	Qualified personnel to perform observations.	Certified personnel shall perform Method 9.
iv. Monitoring Frequency	Daily	Upon the observation of visible emissions from cyclone stack.
v. Data Collection Procedures	Records that indicate time, facility operational status and results of each observation.	Records that indicate time, facility operational status and results of each observation.
vi. Averaging Periods	Instantaneous	One six minute period in any one hour.